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CURRENT SERIAL RECORDS

ITALIAN AGRICULTURE

Projections of
Supply and Demand
in 1965, 1970,
and 1975

PREFACE

The U.S. Department of Agriculture is conducting a worldwide country-by-country analysis of the prospective supply, demand, and trade in agricultural products in 1965, 1970, and 1975. Individual country studies are contracted to a competent research organization within the country. Several completed studies have been published by USDA. When all are complete, the series will include studies of 32 countries, which represent about 80 percent of the market for U.S. agricultural exports.

A world report on supply, demand, and trade in farm products is planned for publication in 1965. This work is under the general supervision of the Director, Regional Analysis Division, Economic Research Service. Inquiries regarding the status of the work, studies completed, and availability of reports may be sent to the Director.

January 1964

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SUMMARY

Italy's demand for farm products is expected to expand much faster than domestic production during 1965-75. Projected population increases and expected dietary improvements suggest that requirements for coarse grains, livestock products, fats and oils, fibers, and fruits and vegetables are expected to increase considerably.

The Italian Government's policy of livestock expansion will require substantial feed grain imports. Although per capita consumption of cereals and other starch foods is expected to decline, wheat requirements are expected to rise, due to the anticipated growth in population.

Total crop area is expected to remain about the same. However, shifts among crops probably will occur. Acreage planted to fruits, vegetables, feed grains, forages, and industrial crops is expected to expand at the expense of cereal, bean, and pulse acreage.

The traditional Italian pattern of regional production will likely change. Southern Italy will increase its relative share of output, principally because of land reclamation and irrigation.

Higher crop yields due to technological advances are expected to be instrumental in increasing agricultural production. Fruit, vegetable, and wine production is expected to increase substantially. Traditional export markets for these commodities will likely be maintained. Italy probably will continue to be the major supplier of fruits and vegetables to the Common Market.

The United States has traditionally been a supplier of agricultural products to Italy--mainly feed grains, oilseeds, cotton, tobacco, and hides and skins. U.S. exports of cotton and hides and skins are not expected to change appreciably. Exports of corn, soybeans, and tobacco are expected to increase substantially, but this expectation depends upon maintenance of an equitable access to the Italian market.

ITALIAN AGRICULTURE: PROJECTIONS OF SUPPLY AND DEMAND IN 1965, 1970, AND 1975

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INTRODUCTION

This report summarizes a study, begun in 1958 and completed in 1961, prepared by Professors G. Orlando and Vera Cao-Pinna, under a contract with the National Institute of Agricultural Economics (INEA), Rome, Italy. The study was conducted independently and its views are not necessarily those of the U.S. Department of Agriculture.

The comprehensive study makes an important contribution towards USDA's worldwide program of developing long-range projections of the supply and demand for farm commodities. It is regrettable that the size and organization of the original manuscripts prohibit publishing the original study in its entirety.

The Center for the Market Studies of the National Institute of Agricultural Economics, Milan, Italy, published Professor Orlando's condensed supply study in Italian: "Previsioni Delle Produzioni Agricole Italiane" in December 1962. The Italian Institute for the Studies on Consumption of the Italian Union of Chamber of Commerce of Industry and Agriculture in Milan, Italy, published Professor Cao-Pinna's demand study in Italian: "Le Prospettive Dei Consumi Alimentari in Italia" in late 1962.

This summary covers the principal results, including a description of the major assumptions underlying the projections, methodology used, brief commodity statements, and statistical estimates of Italy's

supply, demand, and net trade in farm products in 1965, 1970, and 1975. An analysis of implications for future U.S. agricultural exports to Italy is presented.

IMPLICATIONS FOR U.S. AGRICULTURAL TRADE

Requirements for Farm Products

Italy's requirements for farm products are likely to increase faster than its output during 1965-75. Demand is projected to grow at an annual rate of 2.4 percent, while domestic supply will rise by only 2 percent. The degree of self-sufficiency is thus expected to decline. Total imports are expected to increase until 1965, then remain stable until 1975. Growth in domestic demand is expected to substantially increase imports of meat, feed grains, wool, fibers, and fats. Imports of tobacco and eggs are expected to continue in minor proportions. Durum wheat is expected to remain an import item. Production of soft wheat will probably meet domestic needs in normal crop years. On the other hand, considerable surplus production of fruits, vegetables, and wines is anticipated.

Supply and demand relationships of more than 40 selected farm products were examined in the Italian study. During the period 1955-57, and in 1965, 1970, and 1975, some domestic products showed deficits while others showed surpluses. Net

balances of these two groups indicated import deficits (in terms of constant prices of 1958 lire) of \$278 million, \$870 million, \$1,048 million, and \$1,079 million, respectively. These deficits were equivalent to 5 percent of the value of gross agricultural output in 1955-57. Deficits were projected to increase to 13 percent by 1965, 14 percent by 1970, and 15 percent by 1975.

The Italian study was conducted to determine the degree of self-sufficiency and net requirements or surpluses in agricultural products. Therefore, the potential imports, exports or re-exports, and carryover of the selected commodities were not accounted for. To measure gross import needs for the projection periods, a complete balance sheet is needed covering required details for each commodity. The "net trade" (assumed to mean net requirement) referred to in the Italian study does not represent gross imports, but the difference between domestic production and various domestic uses, such as food, feed, seed, waste, industrial uses, etc.

Net trade generally cannot be used to measure the projected level of total imports or U.S. shares of a particular commodity. For example, Italy's average gross imports of wheat in 1955-57 were 650,000 metric tons; the Italian study showed a "net trade" of 55,000 metric tons exported. These 55,000 metric tons do not represent actual exports or indicate gross imports involved, but do represent a residual figure.

However, other selected agricultural commodities the United States traditionally supplies are Italy's major imports, and are not exported to any appreciable extent. Therefore, the estimated "net trade" for such items in the Italian study is accepted as total imports and used for projecting U.S. shares of Italy's agricultural imports.

TABLE 1.--Italy: Value of agricultural imports (c.i.f.), total and U.S. share, 1955-57 and 1960-62

Commodity	Unit	1955-57	1960-62
Total import value.....	Million dollars	955.3	1,558.0
Import value from United States.....	ditto	108.3	183.7
Import share from United States.....	Percent	11.3	11.8

Source: Statistics on the European Economic Community, Vol. 1: Agricultural Trade and Finance, ERS-Foreign-43, U.S. Department of Agriculture.

Exports of Selected Agricultural Products to Italy

The United States has been a major supplier of agricultural products to Italy. While Italy's agricultural imports from all sources increased 63 percent in 1960-62 over 1955-57, imports from the United States increased 70 percent. The value of the U.S. share of Italy's total agricultural imports averaged 11 percent (\$110 million) in 1955-57 and 12 percent (\$185 million) in 1960-62 (table 1). However, U.S. shares of individual commodities have fluctuated. Between these two periods, some shares rose dramatically such as oilseeds and wheat, some declined such as fats and oils, and some remained rather constant such as cotton (table 2). Major reasons for these fluctuations are changes in domestic output, changes of agricultural policy, and changes in prices. For projection purposes, U.S. average shares of Italy's agricultural imports in the two base periods, 1955-57 and 1960-62, were used for the upper and lower limits.

The following commodity analysis is based on general and specific assumptions and projected domestic production and requirements estimated in the Italian study. Only those selected for discussion are commodities of which Italy has been a deficit producer and of which the United States has been a constant supplier (table 3).

Discrepancies in this report between data used for implications in U.S. trade and data in tables 13 to 59 (extracted from the Italian study) are due mainly to the origin of sources. The former information was largely obtained from OECD (Organization for Economic Cooperation and Development) trade publications and USDA compilations; the latter was based on national statistics which in some cases were

TABLE 2.--Italy: U.S. percentage share of imports of selected commodities, quantity basis, average 1955-57 and 1960-62

Commodity	1955-57	1960-62	Change
-----Percent-----			
Wheat.....	13.0	46.7	+33.7
Feed grains.....	5.3	11.6	+ 6.3
Oilseeds, nuts, and kernels.....	4.3	39.0	+34.7
Fats and oils.....	39.0	33.0	- 6.0
Leaf tobacco.....	10.0	22.0	+12.0
Cotton.....	46.0	47.0	+ 1.0
Hides and skins.....	4.2	6.3	+ 2.1

Source: Statistics on the European Economic Community, Vol. 1: Agricultural Trade and Finance, ERS-Foreign-43, U.S. Department of Agriculture.

adjusted by the researchers. Therefore, they may not precisely agree with data from other sources. (See more explicit explanations under Methodology.) Different purposes in this report required different approaches than those used in the Italian study. For instance, in developing data on trade implications for the United States, Italy's total agricultural imports together with U.S. shares in the 1955-57 period were used for projection purposes; the Italian study used net trade to indicate its requirements for agricultural commodities in the projection periods.

Wheat

Italy's total wheat imports during 1955-57 and 1960-62 averaged 648,000 and 1,164,000 metric tons, respectively. Durum wheat imports in 1955-57 accounted for 48 percent; in 1960-62 for 20 percent. Wheat imports from the United States averaged 84,000 metric tons (mostly hard wheat), or 13 percent of the total wheat imports in 1955-57, and 544,000 metric tons (mostly soft wheat), or 47 percent in 1960-62. This increase was due mainly to the poor wheat harvest in 1960. For 1951-62 the U.S. share averaged 270,000 metric tons, representing 32 percent of Italian wheat imports. Wide fluctuations in the U.S. share characterize an extremely unstable import situation. Time series and other available information indicate a 3- to 5-year cycle in Italian wheat production and imports. The cycles are reflected in the level of U.S. wheat exports. In 1958 and 1959, Italy imported only 174,000 and 59,000 metric tons, respectively, reflecting good crops in 1957

and 1958. U.S. shares of the total in both years were almost nil. However, imports in 1960 and 1961 increased sharply to 576,000 and 2,435,000 metric tons, and the U.S. share was 35 percent and 54 percent, respectively. This increase in total imports and the U.S. share resulted from the poor harvest of 1959 and the very poor harvest of 1960.

Imports of hard wheat (mainly durum) averaged 310,000 metric tons in 1955-57 and 255,000 in 1960-62. These imports were needed to meet milling requirements. The United States has supplied some of this hard wheat, although the amount has varied substantially during the past 12 years.

The U.S. share in 1950 was 20 percent. In 1951, it decreased to 4 percent. However, it rose sharply in 1952 to 64 percent. Between 1953 and 1956, there was practically no hard wheat shipped to Italy. Shipments in 1957 rose significantly to 43 percent; but thereafter until 1962, the U.S. share was insignificant.

Italy may not be considered a constant wheat market for the United States. When Italy has a deficit in wheat production and requires imports, the United States normally shares in its total imports. When Italy's wheat crop is normal, the United States may not supply any wheat. Therefore, the U.S. share of Italy's total wheat imports in the two base periods, ranging from a low of 13 percent to a high of 47 percent, serves only as a guide in projecting U.S. exports to Italy.

TABLE 3.--Italy: Import requirements of selected agricultural products by quantity, total, and from United States, annual averages 1955-57 and 1960-62, and projected 1965, 1970, and 1975

Commodity	Annual average			Projection ¹		
	1955-57	1960-62	1965	1970	1975	
----- 1,000 metric tons -----						
<u>Wheat</u>						
Total imports from United States.....	648	1,164	100	95	140	
Based on 1955-57 share.....	84	-	13	12	18	
Based on 1960-62 share.....	-	544	47	44	65	
<u>Feed grains²</u>						
Total imports from United States.....	636	2,771	1,835	3,245	3,680	
Based on 1955-57 share.....	34	-	97	172	195	
Based on 1960-62 share.....	-	322	213	376	427	
<u>Oilseeds, Nuts and Kernels</u>						
Total imports from United States.....	207	526	315	397	471	
Based on 1955-57 share.....	8.8	-	17	..	17	
Based on 1960-62 share.....	-	205	123	155	20	
<u>Fats and Oils</u>						
Total imports from United States.....	318	375	268	348	403	
Based on 1955-57 share.....	125	-	105	136	157	
Based on 1960-62 share.....	-	125	88	115 ³	133	
<u>Leaf Tobacco</u>						
Total imports from United States.....	8.3	17	7	21	30	
Based on 1955-57 share.....	.8	-	.7	2.1	3.0	
Based on 1960-62 share.....	-	3.7	1.5	4.6	6.6	
<u>Cotton</u>						
Total imports from United States.....	180	258	210	225	240	
Based on 1955-57 share.....	83	-	97	104	110	
Based on 1960-62 share.....	-	121	100	106	113	
<u>Hides and Skins³</u>						
Total imports from United States.....	71	132	-	-	-	
Based on 1955-57 share.....	3	-	8.3	-	-	
Based on 1960-62 share.....	-					

¹ All projection figures are from the Italian study representing "net requirements". ² Including rye. ³ Not covered in the Italian study.

February 20, 1964

JUL 31 1964

UNITED STATES DEPARTMENT OF AGRICULTURE
Economic Research Service
Washington, D.C. 20250

CURRENT RECORDS

ERRATA NOTICE

This sheet replaces page 4 (Table 3) of ERS-Foreign-68 entitled Italian Agriculture-
Projections of Supply and Demand in 1965, 1970, and 1975 dated January 1964.
Also, delete footnote 2 of Table 49, page 40.

TABLE 3--Italy: Import requirements of selected agricultural products by quantity,
total, and from United States, annual averages 1955-57 and 1960-62,
and projected 1965, 1970, and 1975

Commodity	Annual average		Projection 1/		
	1955-57	1960-62	1965	1970	1975
<u>Wheat</u>			<u>- 1,000 metric tons</u>		
Total imports (world).....	648	1,164	100	95	140
Imports from the United States:					
Based on 1955-57 share.....	84	---	13	12	18
Based on 1960-62 share.....	---	544	47	44	65
<u>Feed grains</u> 2/					
Total imports (world).....	636	2,771	1,835	3,245	3,680
Imports from the United States:					
Based on 1955-57 share.....	34	---	97	172	195
Based on 1960-62 share.....	---	322	213	376	427
<u>Oilseeds, nuts, and kernels</u>					
Total imports (world).....	207	526	315	397	471
Imports from the United States:					
Based on 1955-57 share.....	8.8	---	13	17	20
Based on 1960-62 share.....	---	205	123	155	184
<u>Fats and oils</u> 3/					
Total imports (world).....	318	375	268	348	403
Imports from the United States:					
Based on 1955-57 share.....	125	---	105	136	157
Based on 1960-62 share.....	---	125	88	115	133
<u>Leaf tobacco</u>					
Total imports (world).....	8.3	17	7	21	30
Imports from the United States:					
Based on 1955-57 share.....	---	.8	---	2.1	3.0
Based on 1960-62 share.....	---	3.7	1.5	4.6	6.6
<u>Cotton</u>					
Total imports (world).....	180	258	210	225	240
Imports from the United States:					
Based on 1955-57 share.....	83	---	97	104	110
Based on 1960-62 share.....	---	121	100	106	113
<u>Hides and skins</u> 4/					
Total imports (world).....	71	132	---	---	---
Imports from the United States:					
Based on 1955-57 share.....	3	---	---	---	---
Based on 1960-62 share.....	---	8.3	---	---	---

1/ All projection figures are from the Italian study representing "net requirements".
2/ Including rye. 3/ Excluding olive oil. 4/ Not covered in the Italian study.

Feed Grains, Including Rye

Italy is a net importer of feed grains. The import volume has increased considerably in recent years, from an average of 636,000 metric tons in 1955-57 to 2,771,000 in 1960-62. This tremendous gain was due primarily to the Italian Government's policy of expanding the livestock industry. During 1955-57, the U.S. share averaged about 5 percent of Italy's feed grain imports and rose to 12 percent during 1960-62.

Imports of corn, the most important imported feed grain, rose from an average of about 300,000 metric tons during 1955-57 to over 2 million during 1960-62. The U.S. share was about 80,000 metric tons and 437,000, respectively. The Italian study projects an increase in the net imports of corn to over 1 million metric tons by 1965, 2.25 million by 1970, and 2.5 million by 1975.

Barley imports rose from about 170,000 metric tons during 1955-57 to nearly 500,000 during 1960-62. The United States supplied about 9 percent in 1960-62. According to the Italian study, imports are expected to total 500,000 metric tons by 1965, 600,000 by 1970 and 820,000 by 1975.

The Italian study projects imports of oats to double by 1965 and treble by 1970 and 1975 over the average imports of 60,000 metric tons during 1955-57. The United States has supplied only a small amount of oats to Italy in the past. In 1962, however, Italy imported 40 percent of its oats (about 35,000 metric tons) from the United States.

Since total imports of corn, barley, and oats by Italy are expected to increase, U.S. exports of these feed grains to Italy are also expected to increase (table 3).

The Italian study projects the net requirements of feed grains to 1,835,000 metric tons by 1965, 3,245,000 by 1970, and 3,680,000 by 1975. These projections may be too low. The United States averaged exporting more feed grains to Italy during 1960-62 than the projected U.S. share for 1965. U.S. exports in 1960-62 about equal the projected amount for 1970. Italy will need to import substantial quantities of feed grains if it is to realize its livestock expansion program. Based on the upward trend (from 5 to 12 percent) of U.S. exports to Italy during the two base periods, exports

may increase substantially in the future if an equitable access to the Italian market is provided.

Oilseeds and Nuts

Mainly for economic reasons, the Italian Government has been encouraging imports of oilseeds for domestic processing rather than imports of vegetable oils. This has resulted in a sharp decline in imports of U.S. soybean oil. Total imports of oilseeds increased from an annual average of 207,000 metric tons during 1955-57 to 526,000 during 1960-62. Further increases are forecast. The U.S. share of Italy's total oilseed imports rose from an average of 4.3 percent (about 9,000 metric tons) during 1955-57 to 39 percent (about 205,000 metric tons) during 1960-62. U.S. soybean shares rose from 60 percent to 94 percent in the corresponding periods, partly due to a decline in soybean imports from Communist China.

Plans for a new factory to process soybeans and other oilseeds are underway in Sardinia. Reportedly, this plant will cost about \$8 million and employ 200 workers.

The substantial increase in the U.S. share of Italy's oilseed imports may not represent the long-term trend. However, during the projection period, all indications suggest a continuous uptrend. The U.S. share in the two base periods provides a flexible range, from 4.3 percent to 39 percent. Since Italy's actual imports as well as the U.S. share during 1960-62 have already exceeded all projected quantities through 1975 as indicated in the Italian study, the resultant projections for the U.S. share seem conservative (table 3).

Italy's total oilseed imports are related to the projected import requirements for fats and oils.

Fats and Oils Excluding Olive Oil

Although Italian per capita consumption of fats and oils (including butter) is low compared with other western European countries, domestic production is insufficient to meet increasing demand. Therefore, substantial imports are required. Despite the Government policy encouraging oilseed imports rather than seed oils, the increases in imported seed oils and animal fats during the past years surpass previous levels. During 1955-57, Italy imported about

318,000 metric tons of fats and oils; imports during 1960-62 increased to 375,000. The U.S. share during the corresponding periods was 40 percent and 33 percent, respectively. This relative decrease was reflected fully in imports of U.S. soybean oil, which declined to 10 percent of total vegetable oil imports in 1962 compared with about 80 percent in 1961. (This decrease was partly compensated by a corresponding increase in soybean imports from the United States, from 186,000 metric tons to 319,000.)

If emphasis continues on the importation of oilseeds for domestic processing, Italy's total seed oil imports in the long run are expected to decline. Although the Italian study forecasts an uptrend in Italy's net requirements for fats and oils (268,000 metric tons by 1965, 348,000 by 1970, and 403,000 by 1975), the bulk of the total requirements--roughly 65 percent--will be supplied in the form of imported oilseeds.

The United States supplied about 96 percent (115,000 metric tons) of Italy's inedible tallow during 1960-62. Tallow imports (mainly for industrial uses) from the United States are expected to remain stable.

Tobacco

Annual production of leaf tobacco in Italy averaged about 75,000 metric tons during 1951-62. Further production expansion is limited because of: (1) high cost of domestic production, (2) shortage of skilled labor, (3) unavailability of land, mainly due to competition from fruit and vegetables, and (4) limited possibilities for increasing yields. In addition, maintaining traditional trade relations and fulfilling Italy's Common Market obligations require continuing imports of raw tobacco. The Italian study estimates that annual per capita tobacco consumption will increase substantially from 1.47 kg. during 1955-57 to 1.76 in 1965, 2.03 in 1970, and 2.15 in 1975. Expanded imports from Greece and Rhodesia-Nyasaland may affect existing trade patterns, although Italy's total imports of high-quality tobacco are expected to increase.

Raw tobacco imports from the United States have fluctuated considerably. During 1955-57, Italy took an average of 830 metric tons (10 percent of total tobacco imports) from the United States--mostly flue-cured,

burley, and Virginia bright type of high quality. Tobacco imports from the United States increased to 3,700 metric tons (22 percent) during 1960-62. This substantial increase was due partly to Italy's poor tobacco harvest in 1961, because of an infestation of blue mold disease.

Italy is also an exporter of raw tobacco. From 1951 to 1962, Italy's tobacco exports averaged 18 percent of its domestic production; imports averaged 13 percent. In 1960-61, Italy exported over 1,000 metric tons of Oriental tobacco to the United States, equivalent to 50 percent of its tobacco imports from the United States.

The Italian study indicates that net requirements for tobacco in the projection periods are expected to increase to 7,000 metric tons by 1965, 21,000 by 1970, and 30,000 by 1975. Based on past trends, it is reasonable to assume that Italy will continue importing high-quality tobacco and exporting some Oriental tobacco. Since the United States is a traditional supplier of Italian tobacco imports and can meet price competition, Italy is expected to continue buying some U.S. tobacco.

Cotton

Italy produced only a small amount of cotton, about 5,000 metric tons annually during 1960-62. This was only 5 percent of Italian mill consumption. Huge imports are needed to meet increasing domestic demand and maintain exports of yard goods and textiles. Italy does not export raw cotton. During 1955-57, imports averaged 180,000 metric tons and increased to 258,000 during 1960-62. The U.S. share in these respective periods was 46 percent and 47 percent. This slight uptrend is expected to continue during the projection periods, because the United States has many varieties in abundant supply and priced competitively. Customs duties on cotton imports into Italy have been decreased gradually, and by 1970, when EEC's common external tariffs are in effect, all national import duties will be eliminated. This liberalization may enable the United States to export more cotton to Italy. Since Italy's cotton output contributes such a small percentage to its requirements, the projected net requirements in the Italian study were considered as total gross imports. The estimates are 210,000 metric tons by 1965, 225,000 by 1970, and 240,000 by 1975.

Hides and Skins

Hides and skins are also examined in this report because of their importance in trade between the United States and Italy, although the Italian study did not deal with these commodities.

On the average, 71,000 metric tons of hides and skins were imported by Italy during 1955-57. The United States supplied about 3,000 metric tons, or less than 5 percent. During 1960-62, the U.S. share rose to more than 6 percent, as total imports increased steadily. The increase corresponded to an expansion of the Italian leather industry. In 1961, the United States bought \$33 million of footwear and gloves from Italy, or 27 percent of its leather-goods exports. The United States and Argentina are major suppliers of hides and skins, each accounting for 30 percent of the world market. Despite a recent slowing of the expansion of the Italian leather industry, the United States is expected to maintain its level of hide and skin exports to Italy.

Fruits and Vegetables

Italy is a large producer of fruits and vegetables, sufficient for domestic consumption and exports. In 1961 the value of these exports averaged about \$650 million, 65-70 percent of the value of agricultural exports. The export increase in recent years definitely points to a continuation. From 1955 to 1961, Italian fruit and vegetable exports increased from 2 million metric tons to about 3.6 million. Over 90 percent of these exports are fresh fruits and vegetables; preserved and dried products account for the rest. The EEC countries, on the average, took about 70 percent of Italy's fruit and vegetable exports during 1955-61. West Germany alone took 50 percent during this period.

The Italian study estimated that fruits and vegetables for export will amount to 2.8 million metric tons by 1965, 3.6 million by 1970, and 4.3 million by 1975.

Due to gradual elimination of internal customs duties and quantitative restrictions under EEC fruit and vegetable regulations, Italy is expected to substantially increase fruit and vegetable exports to the Common Market.

The United States is also an exporter of fruits and vegetables. West Europe accounted for about 15-20 percent of U.S. fruit and vegetable exports during 1955-58. EEC countries accounted for about 8-15 percent during 1958-61. U.S. exports of canned, preserved, and frozen fruits and vegetables to the EEC are expected to continue; exports of fresh fruits, such as apples, pears, and citrus, are currently inhibited by quantitative restrictions by each of the EEC countries. The Common Market has not developed a uniform coverage to handle these items under the fruit and vegetable regulations.

Italy may have the potential to produce the same commodities as the United States. However, a long time would be required to develop comparable varieties and appropriate processing techniques.

Other Considerations

When ascertaining the impact of U.S. agricultural exports to Italy in the projection periods, consideration should be made to certain prevailing conditions and some that might occur in the future. These conditions could encourage U.S. exports, or they could discourage them.

The Italian Government uses import quotas and licenses to control agricultural imports. Imports of grains, tobacco, wines, sugar, vegetable oils, dairy products, poultry, livestock and meats, and other products are under import restrictions, although recent actions have liberalized imports of certain products.

In the past, temporary relaxation on imports occurred periodically when urgent domestic needs arose, but they were only temporary.

Bilateral agreements are important in conducting Italian foreign trade. There are now 47 such agreements, including 9 with Soviet bloc countries. Whether and to what extent the Government gives preference to countries with bilateral trade agreements, to the detriment of U.S. trade, is not known. These agreements provide obstacles to developing freer trade, except in products liberalized under import licenses.

Italy is a member of the EEC and subject to regulations under the Common Agricultural Policy (CAP) and Common External

Tariff (CXT). The Rome Treaty provides for progressively eliminating internal duties among member states and adjusting external duties of individual states to the CXT level. By 1970, all internal duties will be eliminated. The same measure will be applied to the Associated Overseas Countries (AOC), who will enjoy duty-free entry of goods into EEC. Although EEC generally is committed to eliminating nontariff barriers, the CAP provides that some nontariff barriers may be imposed (as on fruit and vegetables).

The ultimate effect varies on U.S. exports to Italy, according to commodity, tariff changes of the Italian import system, influence of the bilateral agreement trade, implementation of the CAP and CXT, and other factors.

Feed grains (mainly corn) and wheat are subject to the EEC variable levy system. A recent authorization from the EEC, allowing Italy to apply an extra levy on quality wheat imports under the "escape clause," would discourage imports from the United States. Tobacco imports under State monopoly are subject to import duty. However, tobacco from Greece (an associate member of EEC) will be admitted duty free to all Common Market countries. This also applies to tobacco imported from the Associated Overseas Countries.

Vegetable oils are subject to import control. Olive oil and seed oil prices are partly controlled through import ratios. Oil importers are required either to purchase Government-owned oil in fixed ratios to quantities imported or to forfeit an equivalent cash deposit. Other oils are subject to quantitative restrictions also.

PROJECTIONS OF SUPPLY AND DEMAND

Methodology

In conducting the Italian study, Professors Giuseppe Orlando and Vera Cao-Pinna were confronted with the same methodological difficulties: defectiveness of source materials, dissimilarity of short-term and long-term trends, and the necessity to conduct related studies simultaneously on a regional and national basis. In several instances, time series had to be replaced by independent estimates of past develop-

ments. Thus the future had to be estimated sometimes on the basis of what the past was assumed to be. Radically new tendencies in farm product supply and demand emerging during the 1950's required meticulous examination of their consistencies with earlier trends. Moreover, the great differences in regional levels of living and patterns of production called for careful reconciliation of the results of regional and national projections.

Statistical data at the inception of this study did not go beyond 1957, although more recent information became available as the work proceeded. Time series are generally from 1949 to 1959, although some are from 1919 to 1959. The years 1955-57 were selected as reference years for analytical reasons, but they otherwise are not especially significant. The projections were carried generally to 1965 and 1970. Projections for 1975 were tentative extrapolations of trends expected to prevail from 1965 to 1970.

The following general assumptions were made: (1) no large-scale war or preparation for war, but continued international tension, with defense expenditures in major countries continuing at current ratios to national incomes; (2) no major cyclical depression anywhere; continued near-full employment in industrial countries and accelerated economic development in underdeveloped countries; no major inflation on a world scale, but general price levels trending upward; continued substantial growth of real per capita income in most areas and relative growth of economic integration; and (3) population growth according to most accurate indigenous forecasts.

In line with these general assumptions, both professors treated certain basic assumptions concerning prospective GNP development, future population growth, employment, and private consumption in a precise manner.

Gross National Product

In the absence of drastic national or international political disturbances, it was assumed that Italy's economy would show continuous progress. Based on the 5.5 percent growth rate during 1950-1958, an annual GNP growth rate of 4.86 percent between 1955-57 and 1965 is expected. Thereafter,

the growth rate will slow to 4.32 percent between 1965 and 1970. Projections for 1975 were not made. These projections were according to proportional contributions of four major economic sectors: industry (including services), agriculture (including fisheries and forestry), construction, and public expenditure (including central and local administration). The industry sector was considered the most dynamic element of the economy, representing 70 percent of the GNP, and a projected annual rate increase in labor productivity of 3 percent between 1955-57 and 1965, and 3.65 percent between 1965 and 1970. This sector was measured according to interrelationships that exist between output and a combination of inputs, such as labor, capital, and technological progress. The other economic sectors were measured on the basis of extrapolating long-run Government policies. In developing potential GNP growth rates by sector, the prospective development of the Italian balance-of-payments situation was also considered.

Population

The basic demographic variables in this projection were from the Central Institute of Statistics estimates, which were limited to the resident population at the end of each projection year. These were adjusted according to net emigration outflow, which normally offsets the natural expansion of the Italian population. Since statistical information on emigration outflow was inadequate, it was necessary to examine historical and present emigration trends, labor situations in major recipient countries, their policies concerning Italian immigrants, and other relevant factors. Italy was divided into three major geographic areas to facilitate growth rate and emigration outflow projections. The estimated future development of net tourist inflow was also taken into account. Seasonal emigration of labor forces within western European countries was ignored. Final projections were made on the population size at midyear 1965, 1970, and 1975.

In the base period (1955-57), Italy's population was 48,274,000. It is expected to reach 50,650,000 in 1965, 51,700,000 in 1970, and 53,000,000 in 1975. By 1970 the rural population is expected to drop 1 million, but will still represent 30 percent of the population (34 percent in 1955-57). By 1970 the urban population is expected

to reach 36,200,000, an increase of more than 4.3 million over the base period.

Employment

Population estimates of working ages, labor forces, and employment in different sectors were established on a nationwide basis. Numerous factors (such as emigration outflow, prospective rates of persons able and willing to work, and seasonal employment) were carefully weighed and treated. Employment distribution by sectors was primarily based on the migration of labor from agriculture, estimated at 60,000 workers per year from 1955-57 to 1965 and 50,000 per year from 1965 to 1970. General employment is expected to increase faster than the labor force. Employment likely will increase at an annual rate of 1.2 percent between 1955-57 and 1965 and 0.83 percent between 1965 and 1970. Unemployment is projected at 3.5 percent of the labor force by 1970, compared with 6.5 percent in the base period.

Food Consumption

Per capita consumption was also established on a nationwide basis. It was based on an extrapolation of variations in this component's share of total resources during the 1950-1958 period, together with recent developments in per capita consumption at constant prices. Data from time series and sample surveys were fully utilized. These data were reclassified and separately elaborated, according to three major geographic areas and two household categories (farm and nonfarm). Time series were established on the basis of agricultural production and trade statistics. Sample surveys provided cross-section information on quantitative and qualitative compositions of the daily diets plus expenditures for clothing, food, services, and durable goods during the survey period. Differences in degree of family budgets, nutrition standards, and per capita expenditures were found for different areas. Income elasticities derived from time series were generally lower than those from cross-section data for food items. The situation was reversed for durable goods. When statistical tools were inadequate, the following guidelines were used for final projections: (1) proportional increase of income among various economic sectors; (2) steady expansion of demand for durable goods and services as income increases; (3) gradual consumer

acceptance of better processed foods, such as frozen meats and vegetables, and (4) limited but gradual improvement of geographic distribution for certain animal and dairy products.

Projection of Supply

In projecting the supply of agricultural products in Italy, Professor Orlando considered it a matter of "estimating" rather than "predicting"--an estimate of future production if prevailing factors remained constant. Time series data on production were used substantially. Due to lack of reliable statistics, variations in stock were somewhat ignored. However, emphasis was on technical advancement, which in turn may influence crop and livestock production. Influence of future economic policy, a highly unpredictable factor, was treated carefully and with due consideration of the past and prevailing agricultural developments by the Italian Government in different regions. Cost factors and price relations were on the hypothesis of a reasonably constant basis. Other abnormally unforeseeable factors, such as revolutionary technical discoveries or war, were not included. Trade policies generally providing protection for domestic production and encouraging self-sufficiency and exports were considered. Influence of price and income elasticity was applied to domestic demand and exports of given commodities in the forecasts. Where price was considered decisive, a long-time series of price data was analyzed to establish definitive trends. Because of crop diversification in Italy, estimates were made for the country as a whole and in some cases for five regions (Northwest, Northeast, Central, Southern, and Islands).

In northern Italy (and to some degree in central Italy) market forces are a predominant influence on agricultural production, although they are modified by Government policy. The projections could therefore be based on prospective trends in the fundamental laws of the market. But southern Italy and the Islands still display, to a very large extent, characteristics of an underdeveloped economy with strong elements of subsistence farming. State intervention in these regions is so substantial that an analytical forecast based on prospective market developments appeared inappropriate. Hence, a special approach to conditions prevailing in southern Italy was used.

This special approach was based on the method developed by Professor Giuseppe Barbero. In this case he did not think the use of time series for projection purposes was satisfactory, since economic development programs are not spontaneous. Instead, he used an available case study of 920 farms and had them grouped by types of farm and production for constructing relative productivities. This construction was not designed to determine the net contribution of inputs to total output, but to bring out a satisfactory input-output relationship to reveal the largest part of the output variance. He further synchronized all factors relative to projections to a single price scale. For an appropriate estimate for 1965, he applied all variables under economic development programs to crops that were affected and analyzed the trend of crops not under the same programs.

The time series, from which trends have been derived, generally included the years 1949-1959. However, when this gave uncertain or contradictory results, a much longer period was analyzed--usually the years 1919-1959.

The principal statistical data were generally those published by Italy's Central Institute of Statistics. However, in cases where these figures appeared unrealistic or evidently contradictory, time series were independently reconstructed.

Projection of Demand

In projecting demand for agricultural products in Italy, Professor Cao-Pinna identified and analyzed relevant factors affecting the historical pattern and recent trends in Italian food consumption. These factors include: (1) the historical disequilibrium between physical resources and the steady population growth rate; (2) the impact of economic development in terms of national and per capita income; (3) the marked regional differences in standards and patterns of living; (4) the gradual decline of the rural population and its impact on food consumption; and (5) effects of agricultural prices on agricultural production and distribution.

Normal price development, possible trade liberalization, and the technical advancement rate were assumed relatively constant to reach a reasonable probability of the potential growth of the Italian economy.

The basic sources of information consisted of time series showing per capita availabilities of individual commodities, average per capita expenditures, and various cross-section studies. The time series were derived from official sources. Cross-section studies consisted primarily of:

- a) A sample survey of 1,599 family budgets covering all classes and regions of Italy. This survey, carried out by the "DOXA" Institute in 1953, gives very valuable information on the quantitative and qualitative composition of the daily diets of Italy's population.
- b) A more extensive survey of 8,207 families in 1953-54 by the Central Institute of Statistics. This survey, although limited in scope, was extremely useful in checking the validity of the 1953 survey.
- c) A detailed sample survey of 1,000 Sicilian family budgets by the Bank of Sicily in 1958. It furnished hitherto unavailable information on nutritional patterns of various social categories in the southern regions.
- d) A survey of food consumption by the National Institute for Nutrition in 1929.

Under these assumptions and in accordance with the available time series and case studies, potential developments of the determining factors were formed. Quantitative demand analyses and per capita requirement for individual agricultural commodities were then developed.

Development of Agricultural Production

The projection of farm production was based primarily on the analysis of the prospective development of three major variables: land utilization, livestock population, and the impact of technological progress on crop and livestock yields.

It is believed that total agricultural area, which amounted to 20.3 million hectares in 1955-57, will remain largely constant. But there will be changes in the acreage of individual crops. Most important will be a decline in land used for wheat and rice (-20 percent in 1975), a gain in feed and forage acreage (+7 percent in 1975), and a very great increase in fruit and vegetable acreage. Barley, rye, and oat acreage is expected to decline; but corn acreage likely will be 55 percent larger in 1975 than in 1955-57. So total grain acreage in 1975 will be only 7 percent lower than in 1955-57. These changes are expected because of new farm policies of lower price supports for grains and stronger incentives for livestock production. The expansion of fruit and vegetable acreage will be due partly to an extension of irrigation and land reclamation.

A considerable increase in crop yields is envisaged. Wheat yields in 1975 are expected to be 33 percent above those in 1955-57, mainly due to introduction of new varieties. Corn yields are expected to rise 34 percent; other feed grains, 16 percent. Yields of fruits and vegetables are expected to rise more sharply. On the other hand, rice yields are to increase only moderately (5 percent) and yields of tobacco will remain unchanged. A great increase in forage yields is assumed to be related to more

TABLE 4.--Italy: Land utilization in 1965, 1970, and 1975
(1955-57 = 100)

Commodities	1965	1970	1975
Wheat and rice.....	88.4	84.7	80.1
Beans and pulses.....	93.5	84.9	85.5
Vegetables (incl. potatoes).....	116.1	120.0	124.8
Industrial crops.....	107.4	111.2	115.3
Feed grains and forage crops.....	103.9	105.3	107.0
Grapes and olives.....	101.6	102.2	103.1
Fruits	130.4	147.7	161.2
Dried fruit (Incl. treenuts).....	88.4	79.8	75.3

TABLE 5.--Italy: Crop production in 1965, 1970, and 1975
(1955-57 = 100)

Commodities	1965	1970	1975
Wheat and rice.....	102	104	104
Feed grains.....	141	161	183
Vegetables (incl. potatoes).....	144	163	178
Grapes and olives.....	121	130	138
Temperate and citrus fruit.....	145	174	198
Industrial crops.....	122	137	148
Legumes.....	105	107	105
Total crop output.....	122	133	142

intensive cultivation and better irrigation of grassland.

Based on these projections of acreage and yields, crop output in 1965, 1970, and 1975 is expected to exceed 1955-57 by 22, 33, and 42 percent, respectively.

Total livestock production in 1975 is expected to exceed the 1955-57 level by 50 percent. This projected increase will result from substantial growth in numbers of cattle, sheep, and poultry; higher slaughter rates and live weights of cattle and hogs (the number of hogs is to remain stationary); and higher yields of milk per cow, wool per sheep, and eggs per hen. Meat output in 1975 is expected to rise 47 percent; milk, cheese, and egg production is expected to rise 54 percent. Despite this impressive growth, livestock output in 1975 will represent only 35 percent of agricultural production, practically the same as in 1955-57.

Gross agricultural output in 1975 is expected to exceed the 1955-57 level by 45 percent; its growth rate is estimated at 2.25 percent until 1965 and 1.63 percent thereafter. Increased output is expected despite a decrease in farm employment. The farm labor force (6,415,000 workers in 1955-57) is expected to fall to 5.5 million by 1970. This means output per worker apparently will increase, averaging 3.6 percent per year until 1965 and 2.6 percent between 1965 and 1970. The increased labor productivity will result not only from increased output due to improved technology, but also from a reduction of underemployed farm labor.

It is not believed that the wide variations in farming efficiency, which exist among

various regions of Italy, will diminish. Particularly in the south, agricultural progress will be relatively modest because of excessive fragmentation of holdings, lack of capital, lack of initiative and technical knowledge, and lack of natural resources. Expected progress in the south is considered a mere beginning of the region's structural transformation into an economically developed area.

Development of Demand for Food

The demand projection was based on general and basic assumptions described in the Methodology section. It was also based on certain specific assumptions concerning the regional and social distribution of income and the likely development of food processing and marketing. Special attention was paid to the great differences in levels of living, nutritional patterns, and social conditions in various parts of Italy. In many instances the projections were carried out by major geographical areas. This was particularly necessary when regional concentration of production appeared to be the major explanatory variable for abnormally low consumption levels of certain food products.

All information in time-series and various cross-section studies were fully examined. None of them alone could provide the specific information required for developing the demand projections of individual commodities. Long-term historical trends of per capita availabilities could not be used for projection purposes, because the extrapolated values resulted generally in lower consumption levels than those already attained in 1958-59. On the other

TABLE 6.--Italy: Percentage share of various regions in agricultural output

Commodities	North		Central		South	
	1955-57	1970	1955-57	1970	1955-57	1970
<u>Percent</u>						
Food grains.....	50.4	44.6	21.1	22.8	28.5	32.6
Feed grains.....	66.6	66.0	12.6	14.9	20.8	19.1
Dried legumes.....	10.0	9.7	13.2	12.3	76.8	78.0
Vegetables.....	39.3	35.8	17.6	20.4	43.1	43.3
Industrial crops.....	84.4	82.0	7.1	8.6	8.5	9.4
Wine.....	38.7	26.7	20.4	18.2	40.9	45.1
Olives.....	5.9	6.9	9.7	8.2	84.4	84.9
Fruits.....	45.4	57.6	5.8	5.2	48.8	37.2
Livestock products....	70.0	71.2	12.9	13.5	17.1	15.3

TABLE 7.--Italy: Agricultural output in 1970 by region

(1955-57 = 100)

Commodities	North	Central	South
Food grains.....	92	113	120
Feed grains.....	161	191	150
Dried legumes.....	100	95	104
Vegetables.....	145	185	162
Industrial crops.....	150	186	172
Wine.....	123	116	143
Olives.....	150	109	130
Fruits.....	202	143	121
Livestock products....	145	150	129

hand, trends during the recent past seemed unduly influenced by the exceptional growth rate of the Italian economy during the past decade. Moreover, the cross-section data did not fully reflect recent changes in consumer preference observed in certain sections of Italian food markets. Therefore, several adjustments had to be made to interpret the demand indications for in-

dividual commodities and to select the most realistic and appropriate relations. When possible, the projections were carried out in both physical and monetary terms.

The prospective developments and tendencies of the per capita and total demand for food may be summarized as follows:

TABLE 8.--Italy: Increase in food requirements

Item	1955-57--1965	1965--1970	1970--1975
<u>Percent</u>			
Per capita.....	25.0	10.2	7.1
(Compound rate per year)...	2.5	1.96	1.38
<u>Percent</u>			
Total.....	31.1	12.5	9.8
(Compound rate per year)...	3.05	2.38	1.89

These figures show the growth in demand expressed in terms of 1958 lire and adjusted for estimated changes in food quality. The growth rates would be roughly 8 percent lower if no allowance were made for quality improvements.

Fruits and vegetables, fats and oils, and meat will contribute most to the increase in demand. However, important changes are expected within each of these groups. For instance, demand for deciduous fruits will presumably increase more than for citrus fruits. Among vegetables, demand for tomatoes will rise much more strongly than for other vegetables; among oils, vegetable oils will be substituted for animal fats. Demand for poultry and beef will grow faster than for other meats. The increase in demand for milk is expected to be retarded by local bottlenecks in supply, while the relatively moderate rise in egg and cheese demand may be imputed to the comparatively high levels of consumption existing in the base period.

The income elasticity of demand has been defined as the relation between changes in total expenditures for private consumption and changes in food expenditures. It has been termed "apparent elasticity." The following table shows the percentage share

of food expenditures in total expenditures for private consumption and the "apparent elasticity" of the demand for food in 1955-57, 1965 and 1970.

Calculation of these elasticities was limited to 1965 and 1970 due to the uncertain nature of projections beyond 1970. These elasticities would be lower if they had been derived from volume indexes, which would have ignored changes presumed to occur in the quality of many products. Notwithstanding the margin of uncertainty by which the values of such relationships are generally and unavoidably affected, variations in the degree of elasticity of the various categories of expenditures are of great interest. They provide a measure of the degree of urgent desire and of their link with the purchasing power of the average consumer.

Data indicate that the average Italian diet will remain characterized by a high content of vegetable protein, although increased meat consumption will substantially raise the intake of animal proteins. Another conspicuous feature of Italy's future nutritional pattern is the rise in the fat rations. However, the average fat and meat intake in 1975 will still be below that already attained in other EEC countries in the base period.

TABLE 9.--Italy: Food expenditure as a percentage in total consumption expenditures and its relations with "apparent elasticity" of food demand

Item	Per capita			Total		
	1955-57	1965	1970	1955-57	1965	1970
----- 1,000 Lire ² ----- ----- Billion Lire ² -----						
Food						
Expenditures in lire..	109.9	137.3	151.4	5,304.3	6,956.4	7,826.0
Index.....	100.0	125.0	137.8	100.0	131.1	147.5
Total consumption						
Expenditures in lire..	218.8	295.1	341.8	10,564.0	14,949.2	17,672.4
Index.....	100.0	134.9	156.2	100.0	141.5	167.3
Percentage share of food expenditures in total consumption expenditures.....	50.2	46.5	44.3	50.2	46.5	44.3
"Apparent elasticity" of the demand for food ¹	-	0.72	0.67	-	0.75	0.71

¹ "Apparent elasticity" = $\frac{\text{Food expenditures index}-100}{\text{Total expenditure index}-100}$

² Represent value of lire in 1958.

Due to the slight decline in cereal and dried bean consumption and the increase in sugar consumption, the carbohydrate content of the average diet will increase. Average calorie intake will increase, but calories of animal origin will not exceed 20 percent in 1975.

The share in total food expenditures of the commodities (tables 10 and 11), the demand for which shows either a negative elasticity or an elasticity of less than 0.60, will decline from 47 percent in the base period to 38.5 percent in 1975. The share of other commodities (with a demand elasticity of more than 0.60) will accordingly increase.

Supply of and Demand for Individual Farm Products

In evaluating future import requirements or export potentials of agricultural products

in Italy, it was necessary to adjust the independent estimates of demand and supply of the individual commodities. However, this stage of the study was expedited, because the two sets of projections were simultaneously organized and developed on the basis of a well-defined methodology and on a common set of general and specific assumptions. These assumptions served as a constant guide to choices and decisions, made not only during successive stages of the study, but also for final appraisals and judgments in reconciling the independent projections of supply and demand for individual commodities.

Many contradictions either of internal inconsistencies or between the two sets of projections were avoided due to consultation of the two working groups throughout development of the projections. However, despite care to prevent unrealistic differences in the projections of supply and

TABLE 10.--Italy: Apparent elasticities of the per capita and total demand for selected food products

Commodity	From 1955-57 to 1965		From 1955-57 to 1970	
	Per capita	Total	Per capita	Total
<u>Grain products.....</u>				
Bread.....	+0.01	+0.13	+0.02	+0.12
Pasta goods.....	-0.05	+0.07	-0.05	+0.06
Wheat flour.....	+0.07	+0.18	+0.07	+0.16
Rice.....	+0.09	+0.19	+0.06	+0.16
Corn flour.....	+0.14	+0.24	+0.09	+0.22
Barley.....	-0.30	-0.15	-0.32	-0.18
Rye.....	+0.22	+0.31	+0.27	+0.36
	-0.95	-0.73	-0.71	-0.53
<u>Meat.....</u>				
Beef.....	+1.03	+1.03	+0.91	+0.92
Pork (fresh).....	+1.27	+1.24	+1.08	+1.07
Pork (processed).....	+0.54	+0.59	+0.56	+0.60
Mutton and goat.....	+0.50	+0.56	+0.43	+0.49
Poultry.....	+0.20	+0.29	+0.25	+0.33
	+1.60	+1.53	+1.48	+1.42
<u>Fish (fresh and canned).....</u>				
	+0.15	+0.26	+0.20	+0.28
<u>Cheese and other dairy products.....</u>				
Cow's milk (fresh & condensed).....	+0.57	+0.63	+0.55	+0.59
Sheep and goat's milk.....	+0.99	+0.99	+0.88	+0.89
	+0.42	+0.50	+0.47	+0.53
<u>Eggs (direct consumption).....</u>				
	+0.56	+0.62	+0.54	+0.59
<u>Fats and oils.....</u>				
Olive oil.....	+0.52	+0.58	+0.60	+0.64
Other vegetable oil.....	+0.31	+0.40	+0.43	+0.49
	+0.72	+0.75	+0.89	+0.90

TABLE 11.--Italy: Percentage share of individual food products in total expenditures for food

Commodity	1955-57	1965	1970	1975
----- Percent -----				
Grain products.....	19.1	15.4	14.0	13.0
Meat.....	22.2	24.1	24.3	24.8
Fish (fresh and preserved).....	2.7	2.3	2.2	2.2
Cheese and other dairy products.....	5.6	5.4	5.3	5.3
Fats and oils.....	7.4	7.0	7.2	7.3
Fresh and dried fruit.....	5.5	6.4	6.2	6.1
Jams, canned fruits and fruit juices....	0.7	0.9	1.1	1.2
Vegetables (fresh, dried, and preserved)	4.7	5.8	6.0	5.9
Sugar.....	2.3	2.2	2.2	2.0
Wine.....	12.1	12.0	12.3	12.7
Coffee.....	3.3	3.6	3.8	4.1
Other.....	14.4	14.9	15.4	15.4
Total.....	100.0	100.0	100.0	100.0

demand for the various commodities, certain refinements were necessary for a realistic reconciliation of the forecasts. These were: (1) data for the various base periods used for the projections were checked and revised on the basis of information from the Ministry of Agriculture and the Central Institute of Statistics; (2) commodity specialists were consulted to determine the validity of prospective trends and market structures for various commodities; (3) the validity of mathematically projected imports and exports was checked by examining recent past trends and effects of Government policy and actions relative to significant changes in Italy's foreign agricultural trade; (4) although limited to only a few cases, the original mathematically calculated supply and demand curves were revised on the basis of newer and more sufficient data; (5) the margin between initial cost of farm commodities for human consumption (both domestic and imported) and final retail price was examined to evaluate the validity of projections relative to relationships existing between the agricultural sector and other sectors of the economy; and (6) the revision of original estimates of national supply and demand for individual commodities was distributed according to the regional breakdown established in the study. This provided an additional check on the plausibility of the projections based on the location of agricultural production, which in Italy is a major factor for some commodities.

The above reconciliation resulted in the following projections of production, requirements, and net trade of individual commodities and commodity groups.

Grains

In the past, Italy's grain economy was primarily geared to human consumption. In 1955-57, the foodgrains--wheat and rice--accounted for 70 percent of total grain output; about two-thirds of the grain supply was used for food. In the future, the pattern of production and utilization will change greatly. In 1975, grain output is expected to be roughly 29 percent higher than in 1955-57, but the share of foodgrains in total output will have fallen to an estimated 58 percent; only 45 percent of the supply will be used for food. Net imports, which in the base period supplied a mere 2 percent of total requirements, will have risen by 1975 to some 3.5 million metric tons, accounting for 17 percent of total requirements (table 13).

Wheat is Italy's principal crop. In 1955-57, it occupied almost one-fourth of the agricultural area and represented about one-fifth of total farm output. Since the early postwar years, the Government's wheat policy has passed through three phases: from 1948 to 1953 the price of wheat was increased; from then until 1957 it was kept stable; thereafter it was reduced. The high price stimulated production

TABLE 12.--Italy: Index numbers of per capita and total demand for quantities of selected food products, 1965, 1970, and 1975

(1955-57 = 100)

Commodity	1965	1970	1975
<u>Cereal</u>			
Per capita.....	99.2	98.9	97.3
Total.....	103.8	105.6	107.0
<u>Meat</u>			
Per capita.....	130.5	143.8	156.6
Total.....	136.7	153.8	171.8
<u>Fish</u>			
Per capita.....	102.9	104.3	107.1
Total.....	107.7	111.5	117.5
<u>Milk</u>			
Per capita.....	127.0	141.6	151.9
Total.....	133.4	151.5	167.0
<u>Cheese and other dairy products</u>			
Per capita.....	117.1	126.3	134.2
Total.....	122.6	135.1	145.8
<u>Fats and oils</u>			
Per capita.....	125.9	143.9	158.3
Total.....	131.9	154.2	172.9
<u>Fruits (fresh and dried)</u>			
Per capita.....	145.8	163.0	173.5
Total.....	153.0	174.7	190.4
<u>Jams, and preserved fruits</u>			
Per capita.....	166.7	220.0	253.3
Total.....	175.0	237.5	279.2
<u>Fruit juices</u>			
Per capita.....	250.0	350.0	400.0
Total.....	250.0	360.0	420.0
<u>Vegetables and beans</u>			
<u>(fresh and preserved)</u>			
Per capita.....	141.3	156.2	164.6
Total.....	148.0	167.2	180.6
<u>Sugar</u>			
Per capita.....	120.0	130.0	130.0
Total.....	124.2	137.6	141.7
<u>Wines</u>			
Per capita.....	113.1	119.6	124.2
Total.....	118.4	128.1	136.4

TABLE 13.--Italy: Grains--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- 1,000 metric tons -----				
Production.....	13,672	15,575	16,625	17,590
Total requirements.....	13,911	17,298	19,771	21,244
Food.....	8,934	9,290	9,450	9,585
Feed.....	3,631	6,760	9,030	10,355
Other.....	1,346	1,248	1,291	1,304
Net trade.....	+239	+1,723	+3,146	+3,654
----- Kilograms -----				
Food--per capita consumption (in terms of grains including paddy rice).	185.1	183.4	182.8	180.8

on lands which might have been more economically used for other purposes. But the high price also made Italy self-sufficient in soft wheat. The price of wheat, which amounted to \$115 per metric ton in the base period, will likely continue declining until it reaches the common price to be agreed upon by the EEC in 1970. Price is assumed to be \$80 per metric ton in 1970 and \$93 in 1965.¹ It is anticipated that wheat acreage will decline in response to decreasing prices, while yields--not influenced by price--will continue increasing. Output will consequently increase about 6 percent in 1970 and 1975 over the base period. It is also expected that the proportion of durum in total wheat output will increase.

Total demand for wheat and wheat products will increase, but per capita consumption probably will remain stable until 1970 and decline thereafter. However, individual wheat products show different consumption trends: Per capita consumption of bread is to decline by 1965; per capita consumption of pasta goods and wheat flour for household use is to increase only until 1965. Per capita consumption of fine bakery goods is expected to increase strongly throughout the projection period. The persistency of high consumption levels of wheat products is primarily due to the importance of bread and pasta goods and wheat flour in average

diets of large segments of the rural population, particularly in the South.

Since wheat requirements are to grow faster than production, Italy is expected to have a very small import deficit for years to come--representing in 1975 not more than 2 percent of total requirements (table 14).

Rice, a comparatively minor crop, is predominantly grown in the Po Valley in northern Italy. Rice marketing is the responsibility of the National Rice Corporation (Enti Nazionale Risi), which also determines price. During the 1950's, two-thirds of the rice supply was usually sold abroad. If foreign prices were high, domestic prices were kept relatively low; the producer price was the average of foreign and domestic prices. If foreign prices were low, producer prices were increased to assure rice growers an adequate return. The elasticity of domestic demand sets a definite limit to such a policy for home consumption and producer prices. Hence, rice acreage will tend to decline if the domestic retail price exceeds a certain level.

The projection of rice output was based primarily on prospective domestic and international price developments and their effects on producer prices and rice acreage. However, future variations of rice acreage in central and southern Italy were derived

¹These prices may be too low, since the average target price in 1963/64 marketing year for soft wheat is \$197 per metric ton.

TABLE 14.--Italy: Wheat--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for			
		1965	1970	1975	
		<u>1,000 hectares</u>			
Acreage.....	4,880	4,310	4,130	3,900	
		<u>Quintals/hectare</u>			
Yield.....	18.2	21.3	22.7	24.2	
		<u>1,000 metric tons</u>			
<u>Production.....</u>	8,885	9,180	9,375	9,440	
Durum wheat.....	1,614	2,155	2,215	n.a.	
<u>Total requirements.....</u>	8,830	9,280	9,470	9,580	
Seed.....	905	730	700	650	
Feed (includes farm waste).....	75	320	370	400	
Food.....	7,800	8,180	8,350	8,480	
Stock and shipping waste.....	50	50	50	50	
<u>Net trade.....</u>	-55	+100	+95	+140	
		<u>Kilograms</u>			
<u>Food--per capita consumption.....</u>	161.6	161.5	161.5	160.0	

from the prospective expansion of irrigation. Yields were forecast in accordance with trends of the past decade. It is expected that acreage and production will decline, although yields will increase.

The projection of consumption (derived from family surveys) leads to the conclusion that, notwithstanding a considerable increase in demand in central and southern Italy, consumption will continue to be concentrated in the industrial areas of northern Italy. Overall consumption is expected to increase by some 15 percent in 1975, but per capita consumption by only 4 percent. Because of the decline in production and increase in domestic requirements, the net export surplus will decline considerably (table 15).

Feedgrains include corn, barley, rye and oats. In 1955-57, feedgrains acreage amounted to 1.85 million hectares; about 60 percent was corn. Corn also accounted for about three-fourths of the total output of feedgrains. The future domestic supply

of these crops was estimated by extending past trends to the target years. These projections indicate a considerable increase in corn acreage and yields and a decline in other feedgrain acreage. Combined output is, however, expected to increase. Future needs were estimated by calculating feed intake (in terms of fodder units) per unit of livestock in the base period and by applying this average to the independent forecast of livestock numbers. Food requirements (including beverages) were estimated separately. In the base period feedgrains accounted for only 16 percent of the feed intake per livestock unit. This percentage will likely rise to over 26 percent by 1970. This would entail an increase in feedgrain consumption of 143 percent in 1970 and 180 percent in 1975 compared with the mid-1950's. Although feedgrain production in 1970 and 1975 is expected to exceed the level of the base period by some 60 and 85 percent, the gap between domestic production and requirements will continue to widen so Italy will become a feedgrain importer on a very large scale (tables 16, 17, 18, 19, 20).

TABLE 15.--Italy: Rice (paddy)--Production, requirements, and net trade in 1955-57, and projections for 1965, 1970, and 1975

Item	Base Period 1955-57	Projections for		
		1965	1970	1975
-----1,000 hectares-----				
Acreage.....	149	135	132	131
-----Quintals/hectare-----				
Yield.....	50	52.4	52.8	53.2
-----1,000 metric tons-----				
Production.....	745	705	695	695
Total requirements.....	467	493	501	529
Seed.....	30	27	25	25
Food.....	433	462	472	500
Waste.....	4	4	4	4
Net trade.....	-278	-212	-194	-166
-----Kilograms-----				
Food per capita consumption (in terms of milled rice).....	6.1	6.2	6.2	6.4

TABLE 16.--Italy: Feedgrains--Production, requirements, and net trade in 1955-57, 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
-----1,000 metric tons-----				
Production.....	4,042	5,690	6,555	7,455
Requirements.....	4,614	7,525	9,800	11,135
Feed.....	3,556	6,438	8,655	9,955
Other.....	1,058	1,087	1,145	1,180
Net trade.....	+572	+1,835	+3,245	+3,680

Sugar

Sugarbeet acreage is heavily concentrated along the Po Valley in northeastern Italy, though it has spread in recent years into southern Italy, following irrigation improvements there. Production and prices are subject to Government control. Production

and consumption of sugar have increased continuously since 1949. Trends in sugarbeet acreage and yields point to future output levels far in excess of those in 1955-57. Production will probably increase faster in central and southern Italy than in areas where sugarbeets have been traditionally grown.

TABLE 17.--Italy: Corn--Production, requirements, and net trade in 1955-57
and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 hectares</u> -----				
Acreage.....	1,130	1,440	1,600	1,760
----- <u>Quintals/hectare</u> -----				
Yield.....	27.6	33.1	35.2	37
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	3,120	4,765	5,630	6,510
<u>Total requirements</u>	3,335	5,900	7,920	8,995
Seed.....	92	96	100	105
Feed.....	2,797	5,380	7,405	8,500
Food.....	431	404	380	350
Waste.....	15	20	35	40
<u>Net trade</u>	+215	+1,135	+2,290	+2,485
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u> (in terms of flour).....	6.7	6.0	5.5	5.0

TABLE 18.--Italy: Barley--Production, requirements, and net trade in 1955-57 and
projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 hectares</u> -----				
Acreage.....	230	222	220	220
----- <u>Quintals/hectare</u> -----				
Yield.....	12.3	13.3	13.6	13.9
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	282	295	300	305
<u>Total requirements</u>	487	735	910	1,120
Seed.....	48	50	50	50
Feed.....	311	541	700	900
Food.....	125	142	155	165
Waste.....	3	2	5	5
<u>Net trade</u>	+205	+1,440	+610	+815
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u>	2.6	2.8	3.0	3.1

TABLE 19.--Italy: Rye--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 hectares</u>				
Acreage.....	80	48	42	37
<u>Quintals/hectare</u>				
Yield.....	14.4	16.7	17.4	19.0
<u>1,000 metric tons</u>				
<u>Production</u>	115	80	75	70
<u>Total requirements</u>	202	198	218	242
Seed.....	18	15	13	11
Feed.....	38	81	110	140
Food.....	145	101	94	90
Waste.....	1	1	1	1
<u>Net trade</u>	+87	+118	+143	+172
<u>Kilograms</u>				
<u>Food--per capita consumption</u>	3.0	2.0	1.8	1.7

TABLE 20.--Italy: Oats--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 hectares</u>				
Acreage.....	407	390	375	375
<u>Quintals/hectare</u>				
Yield.....	12.9	14.1	14.6	15.2
<u>1,000 metric tons</u>				
<u>Production</u>	525	550	550	570
<u>Total requirements</u>	590	692	752	778
Seed.....	77	78	79	80
Feed.....	410	436	440	415
Other uses (industrial and food)....	100	175	230	280
Waste.....	3	3	3	3
<u>Net trade</u>	+65	+142	+202	+208

The upward trend in consumption occurred despite relatively high retail prices. In the base period, about 60 percent of consumption was direct in the form of refined sugar in households; about 40 percent was indirect in the form of sugar-containing products (e.g., sweets, ice cream) or consumption in bars and restaurants. The income elasticity of demand of directly consumed sugar, although higher in rural than in urban areas, is generally lower than indirect consumption. In projecting future demand, it was assumed that retail price will decline, partly because of lower production costs and partly due to a reduction of the excise tax, which represented over 30 percent of the retail price in 1959. Per capita consumption expected for 1975 approaches what has been attained in major EEC countries. It may well represent a saturation level. The export surplus registered in the base period is expected to decline gradually (table 21).

Vegetables

Demand and supply projection for these products should be considered as very

rough approximations because of the frequent lack of reliability and availability of basic statistical material. Estimates of past and future trends in production and consumption were difficult because of the diversity of these products, the seasonal character of marketings, the variety of markets and market structures, and an immeasurable (though variable) portion directly consumed by the producer. These products, which accounted in the base period for an estimated 10 percent of total agricultural output, have been grouped into five major categories: pulses, potatoes, tomatoes, cabbage and cauliflower, and other vegetables.

Pulses (including broad beans, French beans, and dried peas) showed a slightly rising production trend during the past decade. In the future, increased yields will probably be offset by acreage declines, so output in 1975 will be equal to the 1955-57 level. Total and per capita consumption will presumably decline (French beans will rise, others will fall). There also will be a persistent, small import deficit (table 22).

TABLE 21.--Italy: Sugar beets and sugar--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 hectares</u>				
Sugar beets:				
Acreage.....	231	265	275	280
<u>Quintals/hectare</u>				
Yield.....	323	380	415	455
<u>1,000 metric tons</u>				
Production ¹	7,460	10,100	11,400	12,740
Sugar (refined):				
<u>Production</u>	915	1,250	1,450	1,580
<u>Consumption</u>	790	1,165	1,400	1,540
<u>Net trade</u>	-125	-85	-50	-40
<u>Kilograms</u>				
Food--per capita consumption.....	16.4	23.0	27.0	29.0

¹ About 3.5 percent of which is used for feed.

TABLE 22.--Italy: Pulses--Production, requirements, and net trade in 1955-57
and projections for 1965, 1970, and 1975

Item	Based period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 hectares</u> -----				
Acreage.....	1,192	1,115	1,070	1,020
----- <u>Quintals/hectare</u> -----				
Yield.....	6.1	6.7	7.0	7.1
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	733	745	750	725
<u>Total requirements</u>	736	765	760	735
Seed.....	100	100	100	100
Food.....	266	265	260	250
Feed.....	370	400	400	385
<u>Net trade</u>	+3	+20	+10	+10
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u>	5.5	5.2	5.0	4.7

Potatoes in Italy, unlike in Germany and France, are primarily a food crop. Less than 10 percent of output is used for feed. Early potatoes, considered an excellent vegetable, are mostly exported. Late potatoes are used domestically as food and, to a small extent, as hog feed. Very small quantities were used in the starch industry in the past. Italy had a small export surplus of early potatoes and an import surplus of seed potatoes. This situation is expected to continue. With only small changes in acreage, production is forecast to increase in line with the increase in consumption (table 23).

Tomatoes: Fresh tomatoes are mostly consumed within the country, while processed tomatoes (tomato paste, sauce, peeled tomatoes, and tomato juice) are mostly exported. Tomato production and consumption will increase substantially. Exports of fresh tomatoes will increase somewhat; processed tomato exports will increase considerably (table 24).

Cabbage and cauliflower production and consumption will increase during the projection period. Net exports in 1975 are

expected to amount to some 255,000 metric tons (table 25).

Other vegetables include (among others) celery, onions, garlic, egg plant, carrots, turnips, cucumbers, endives, lettuce, radish, chicory, and spinach. Demand for these in several instances shows a higher income elasticity than for cabbage and cauliflower. The supply is largely determined by the extension of irrigation. Output in 1975 is expected to be twice as great as in 1955-57, per capita consumption will be 90 percent higher, and net exports are expected to reach 340,000 metric tons.

Vegetable consumption is greater in southern regions than in the central and northern parts of the country. Notwithstanding a considerable increase in meat consumption in the South, vegetable consumption will likely increase greatly in this area. Italy's per capita intake of vegetables in 1955-57 was higher than in any other EEC country. Nevertheless, consumption is to increase further, but per capita consumption by 1975 might well reach the saturation level. At that time, Italy's

TABLE 23.--Italy: Potatoes--Production, requirements, and net trade in 1955-57
and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 hectares</u> -----				
Acreage.....	388	385	370	360
----- <u>Quintals/hectare</u> -----				
Yield.....	85.5	106.0	116.4	120.0
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	3,315	4,080	4,305	4,320
Early potatoes.....	265	275	280	280
<u>Total requirements</u>	3,265	3,965	4,155	4,245
Seed.....	735	700	680	600
Feed.....	300	430	475	520
Food (incl. industrial uses).....	2,230	2,835	3,000	3,125
<u>Net trade</u>	-50	-115	-150	-75
Import of seed potatoes.....	+120	+95	+80	+70
Export of early potatoes.....	-170	-210	-230	-145
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u>	46.2	56.0	58.0	59.0

exports of fresh vegetables are expected to reach 765,000 metric tons. Exports of canned vegetables, for which domestic demand will increase only moderately, are also expected to increase (table 26).

Fruits

For this study, fruits were divided into nine groups: apples; pears, quinces, and pomegranates; peaches, apricots, and plums; cherries; oranges and tangerines; lemons and other citrus; tree nuts and dried fruits; melons; and other minor fruits. Statistical data reflecting past development of these products are very defective. Only in recent years were statistics somewhat improved. Moreover, minor and major fruits are often grouped together in official statistics, so the relative importance of individual products is sometimes blurred. Therefore, fruit projections are rather tentative. Nevertheless, they are generally believed to reflect future developments, which will be characterized by tremendous

growth of supply and domestic demand and a somewhat slower growth in exports. In examining deciduous fruit projections, it should be kept in mind that demand for these products is generally characterized by very high income and price elasticities and that the supply is strongly influenced by the long vegetation period of fruit trees. This explains, at least in part, the striking increases in production and consumption, particularly during 1955-57--1965. Consumption increased strongly in the base period, a fact concealed by the averages representing the years 1955-57. Moreover, consumption in this period might have been underestimated. On the other hand, numbers of newly planted fruit trees were greatly increased during the past decade; the rate at which they reach bearing age is more gradual than reflected in the sometimes sharp change between production in the base period and in 1965.

Apple exports in 1975 are forecast to remain practically the same as in 1955-57.

TABLE 24.--Italy: Tomatoes--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 hectares</u> -----				
Acreage.....	103	140	160	n.a.
----- <u>Quintals/hectare</u> -----				
Yield.....	173	200	208	n.a.
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	1,780	2,800	3,330	3,795
<u>Total requirements</u>	1,697	2,700	3,235	3,690
Food (direct consumption).....	700	1,420	1,705	1,885
Processing ¹	925	1,165	1,415	1,690
Waste.....	72	115	115	115
<u>Net trade (fresh tomatoes only)</u>	-83	-100	-95	-105
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u>				
Fresh tomatoes.....	14.5	28.0	33.0	35.5
Processed tomatoes (product wgt.)..	1.4	2.0	2.6	3.0

¹ Major part is for export.

TABLE 25.--Italy: Cabbage and cauliflower--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	1,235	1,650	1,815	1,960
<u>Total requirements</u>	1,113	1,455	1,590	1,705
Food.....	953	1,275	1,410	1,525
Waste.....	160	180	180	180
<u>Net trade</u>	-122	-195	-225	-255
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u>	19.7	25.2	27.3	28.8

TABLE 26.--Italy: Other Vegetables--Production, requirements, and net trade in 1955-57
and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- 1,000 metric tons -----				
<u>Production</u>	2,832	4,440	5,145	5,830
<u>Total requirements</u>	2,650	4,255	4,960	5,480
Food.....	2,440	3,975	4,660	5,100
Fresh.....	2,430	3,950	4,620	5,045
Canned.....	10	25	40	55
Waste.....	210	280	300	380
<u>Net trade</u>	-182	-185	-185	-350
----- Kilograms -----				
<u>Food - Per capita consumption</u>	50.5	78.5	90.1	96.2

Exports of peaches and apricots will decline; those of pears and cherries will increase.

The extensive land reclamation in southern Italy will add thousands of acres of citrus plantings. Orange and tangerine crops are expected to increase almost 80 percent by 1975, per capita consumption will increase an estimated 50 percent, and exports will more than double. Production of lemons and other minor citrus fruit will increase to a lesser extent. Per capita consumption of these products will remain stable.

No estimates were made for changes in output, consumption, and trade of processed citrus (juices, essential oils, etc.), except for lemons. Processed lemon production will likely increase about 60 percent between 1955-57 and 1975. Also, the great increase in consumption of temperate-zone fruits will overwhelmingly consist of fresh fruits. Consumption of processed products will not increase much. For tree nuts and dried fruits, output, consumption, and exports are expected to decline. The demand for these products is much less elastic than fresh fruit; production is haphazard and inefficient. Production and consumption of melons and other minor fruits are expected to increase (tables 27-36).

Meat

Comparison of official time series of meat consumption with independent surveys of family consumption showed such contrasts that it was necessary to make new estimates of past levels of consumption and production to create a reasonable premise from which to deduce future developments. However, projections for the next 15 years have at least one feature in common with the recent past: consumption increasing faster than production. By 1975, domestic meat output is forecast to increase more than 50 percent over 1955-57. Consumption will increase nearly 70 percent, and imports will more than triple (table 37).

Beef and veal: During the last 40 years, cattle production in Italy has been largely determined by the Government-controlled price of wheat, the general level of farm protection, and demand. Wheat production being an alternative to cattle raising, the wheat price and the price of imported beef--which has been generally lower than domestic beef price--influence producer prices. This causes variations in the cattle population and the supply of beef and veal.

Since 1948, incomes and demand for beef and veal have increased strongly, leading

TABLE 27.--Italy: Apples--Production, requirements, and net trade in 1955-57
and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	1,200	1,700	1,940	2,100
<u>Total requirements</u>	770	1,390	1,560	1,650
Food.....	600	1,200	1,370	1,450
Feed.....	60	60	60	60
Waste.....	110	130	130	140
<u>Net trade</u>	-430	-310	-380	-450
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u> (including processed products).....	12.4	23.7	26.5	27.4

TABLE 28.--Italy: Pears, quinces, and pomegranates--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
<u>Production</u>	453	740	990	1,120
<u>Total requirements</u>	374	625	740	785
Food.....	317	545	650	690
Feed.....	12	15	15	15
Waste.....	45	65	75	80
<u>Net trade</u>	-79	-115	-250	-335
----- <u>Kilograms</u> -----				
<u>Food--per capita consumption</u> (including processed products).....	6.6	10.7	12.5	13.0

to an increasing supply of domestic slaughter animals. Domestic production has been further stimulated by the recent reduction in wheat prices.

The number of cattle, slaughter rates, and average slaughter weights are expected to increase--combined output of beef and veal in 1970 and 1975 is likely to exceed the base period by 44 and 65 percent. This estimate assumes a further decline in price and acreage of wheat, takes account

of the dual purpose of Italian cattle production (milk and meat), and assumes a continued gradual decline in cattle used for draft purposes. The largest increase in beef production will probably occur in Central Italy, where the change in grain prices will presumably lead to a considerable increase in acreage for pasture or forage crops for cattle raising.

The per capita elasticity of beef demand is one of the highest for all products in

TABLE 29.--Italy: Peaches, apricots, and plums--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
Production.....	586	915	1,100	1,250
Total requirements.....	458	860	1,035	1,175
Food.....	400	780	955	1,090
Waste.....	58	80	80	85
Net trade.....	-128	-55	-65	-75
----- <u>Kilograms</u> -----				
Food--per capita consumption (including processed fruit).....	8.3	15.4	18.5	20.5

TABLE 30.--Italy: Cherries--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
Production.....	127	185	225	275
Total requirements.....	106	157	190	225
Food.....	93	145	180	215
Waste.....	13	12	10	10
Net trade.....	-21	-28	-35	-50
----- <u>Kilograms</u> -----				
Food--per capita consumption (including processed fruit).....	1.9	2.9	3.4	4.1

this study. It is estimated to amount to 1.08 during 1955-57-1970 and will be even higher (1.27) during the first phase of this period. Per capita demand is expected to increase 38 percent until 1965, and 66 percent between 1955-57 and 1975. The wide regional differences in consumption levels will be somewhat modified, but will still persist. In the base period average consumption in the South was 50 percent below the national average and in the North 50 percent above. In 1970 the national average per capita intake of beef and veal is esti-

mated at 18.2 kg. Intake will probably be 12.4 kg. in the South and 25.6 in the North (table 38).

Pork: An analysis of trends in hog numbers and the domestic pork supply indicate that pig breeding apparently has no great future in Italy. The number of hogs, while fluctuating during the projection period, is not expected in 1975 to increase from the base period. Pork production will increase somewhat, due to higher rates of turnover and increased slaughter weights.

TABLE 31.--Italy: Oranges and tangerines--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 metric tons</u>				
Production.....	703	960	1,100	1,245
Consumption.....	483	660	725	795
Net trade.....	-220	-300	-375	-450
<u>Kilograms</u>				
Per capita consumption.....	10.0	13.0	14.0	15.0

TABLE 32.--Italy: Lemons and other citrus fruits--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 metric tons</u>				
Production.....	366	400	445	495
Total requirements.....	174	200	220	230
Food.....	96	100	105	105
Industrial use.....	78	100	115	125
Net trade.....	-192	-200	-225	-265
<u>Kilograms</u>				
Food--per capita consumption (of fresh citrus only).....	2.0	2.0	2.0	2.0

TABLE 33.--Italy: Treenuts and dried fruits--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 metric tons</u>				
Production.....	475	430	395	370
Consumption (including industrial use).....	352	315	290	265
Net trade.....	-123	-115	-105	-105
<u>Kilograms</u>				
Per capita consumption.....	7.3	6.2	5.6	5.0

TABLE 34.--Italy: Melons and watermelons--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
Production.....	415	665	790	870
Consumption.....	410	660	775	850
Net trade.....	-5	-5	-15	-20
----- <u>Kilograms</u> -----				
Per capita consumption.....	8.5	13.0	15.0	16.0

TABLE 35.--Italy: Other minor fresh fruit¹--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
Production.....	285	330	360	405
Total requirements.....	285	330	360	405
Food.....	255	295	325	370
Waste.....	30	35	35	35
----- <u>Kilograms</u> -----				
Food--per capita consumption.....	5.3	5.8	6.3	7.0

¹ Strawberries, figs, etc.

TABLE 36.--Italy: Fresh and dried fruit--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
Production.....	4,610	6,325	7,345	8,130
Total requirements.....	3,412	5,197	5,895	6,380
Food (fresh and processed).....	3,006	4,700	5,375	5,830
Feed.....	72	75	75	75
Industrial use.....	78	100	115	125
Waste.....	256	322	330	350
Net trade.....	-1,198	-1,128	-1,450	-1,750
----- <u>Kilograms</u> -----				
Food--per capita consumption.....	62.2	92.8	104.0	110.0

TABLE 37.--Italy: Meat--Production, requirements, and net trade in 1955-57
and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for			
		1965	1970	1975	
-----1,000 metric tons-----					
<u>Beef and Veal</u>					
Production.....	520	640	750	860	
Consumption.....	580	840	940	1,060	
Net trade.....	+60	+200	+190	+200	
<u>Pork</u>					
Production.....	215	229	230	235	
Consumption.....	250	300	325	345	
Net trade.....	+35	+71	+95	+110	
<u>Mutton and Goat</u>					
Production.....	66	78	82	86	
Consumption.....	66	78	82	86	
<u>Horse & Donkey Meat</u>					
Production.....	23	15	8	6	
Consumption.....	34	40	31	27	
Net trade.....	+11	+25	+23	+21	
<u>Poultry</u>					
Production.....	129	190	223	263	
Consumption.....	140	218	258	295	
Net trade.....	+11	+28	+35	+32	
<u>Rabbit</u>					
Production.....	40	50	57	63	
Consumption.....	40	50	57	63	
<u>Total Meat</u>					
Production.....	993	1,202	1,350	1,513	
Consumption.....	1,110	1,526	1,693	1,876	
Net trade.....	+117	+324	+343	+363	
-----Kilograms-----					
Per capita consumption.....	23.0	30.0	32.7	35.4	

However, the domestic pork supply in 1975 will be only 10 percent higher than in 1955-57.

The relative stability of production seems to be largely due to the fact that rising consumer prices generally do not benefit hog farmers, the price increases being absorbed by middlemen. But any retail price decline is immediately translated into lower producer prices. This relationship between consumer and producer prices

may become less pronounced in the future to the extent large-scale hog breeding becomes more important, but it is likely to remain important in retarding swine production growth.

Pork consumption by farmers is generally higher than among the nonagricultural population. It is also much higher in the northern and central regions of the country than in the south. Moreover, the major portion of pork consumption is in

the form of processed products, which accounted for 70 percent of average consumption in 1955-57 (table 39).

Mutton and goat meat: Production, particularly in central and southern Italy, may be stimulated by the expected change in the Government's grain policy. The number of sheep is forecast to increase by about one-third between 1955-57 and 1975. Mutton

output is expected to increase about 30 percent. The number of goats, on the other hand, will decline substantially (table 40).

Horse and donkey meat: Production is expected to decline with decreased numbers of horses, donkeys, and mules. Per capita consumption will also fall. Imports are small, but will continue to represent a high percentage of domestic requirements.

TABLE 38.--Italy: Beef and veal--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Number of cattle.....	1,000 head	8,529	8,701	9,586	10,417
Slaughter rate.....	Percent	38.4	42.6	44.0	45.2
Number of animals slaughtered..	1,000 head	3,275	3,707	4,218	4,708
Average slaughter weight.....	Kg.	302	317	322	326
Total slaughter weight.....	1,000 metric tons	990	1,175	1,355	1,535
Meat yield.....	do.	52.5	54.5	55.2	56.0
<u>Total production</u> <u>(carcass weight).....</u>	do.	520	640	750	860
<u>Consumption.....</u>	do.	580	840	940	1,060
<u>Net trade.....</u>	do.	+60	+200	+190	+200
<u>Per capita consumption</u>	Kg.	12.0	16.6	18.2	20.0

TABLE 39.--Italy: Pork--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Number of hogs.....	1,000 head	3,904	3,850	3,832	3,900
Slaughter rate.....	Percent	94	98	98.8	98.5
Number of animals slaughtered..	1,000 head	3,670	3,773	3,786	3,842
Average slaughter weight.....	Kg.	124	129	130	130
Total slaughter weight.....	1,000 metric tons	455	487	492	499
Meat yield.....	Percent	47	47	47	47
<u>Total Production</u> <u>(carcass weight).....</u>	1,000 metric tons	215	229	230	235
<u>Consumption.....</u>	do.	250	300	325	345
<u>of which processed.....</u>	do.	174	202	217	233
<u>Net trade.....</u>	do.	+35	+71	+95	+110
<u>Per capita consumption.....</u>	Kg.	5.2	5.9	6.3	6.5
<u>of which processed.....</u>	Kg.	3.6	4.0	4.2	4.4

TABLE 40.--Italy: Mutton and goat meat--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Livestock numbers.....	1,000 head	10,384	12,410	13,015	13,570
Slaughter rate.....	Percent	71	70	66	66
Number of slaughtered animals..	1,000 head	7,373	8,687	8,590	8,956
Average slaughter weight.....	kg.	15	15	16	16
Total slaughter weight.....	1,000 metric tons	110	130	137	143
Meat yield.....	Percent	60	60	60	60
<u>Total production (carcass weight)</u>	1,000 metric tons	66	78	82	86
<u>Consumption</u>	do.	66	78	82	86
<u>Per capita consumption</u>	kg.	1.37	1.54	1.58	1.62

More than 70 percent of Italy's horse and donkey meat is used in sausage making (table 41).

Poultry and rabbits: It has been estimated that about 10 percent of all poultry meat in Italy is produced commercially. Although poultry statistics are very defective, it is estimated that poultry production represents about 14 percent of the gross value of meat production. Commercial poultry farming will probably increase strongly in northeastern Italy, and to a lesser extent in southern and central Italy.

Demand for poultry meat shows a strong income elasticity and, unlike other meats in Italy, a strong price elasticity. Consumption and output are expected to double by 1975 and the import deficit is expected to amount to some 30,000 metric tons. Production and consumption of rabbit meat will also increase considerably (table 42, 43).

Milk and Dairy Products and Eggs

Milk production in Italy consists primarily of cow milk. Sheep and goat milk represented only 7 percent of total milk supply in 1955-57. (However, the proportion is considerably higher in southern Italy and on the islands.) Estimates of past developments differ, but it is generally believed that prewar production increased only slowly and consumption levels were comparatively low. After 1948, cheese con-

sumption increased substantially and in 1955-57 reached levels comparable with those in other EEC countries. However, fluid milk consumption, which was practically stable for almost 40 years, in 1955-57 was only about half the average per capita consumption in EEC countries.

The very slow evolution of the Italian supply and demand for milk is due primarily to the concentration of production in the North, the lack of physical and economic conditions suitable for dairying in other areas, and the highly inefficient organization of milk collection and distribution.

Cow numbers and milk yields are expected to increase, and the total supply of cow milk is expected to increase accordingly. Sheep numbers and sheep milk will also increase, although yields are expected to remain constant. The increase in production of cow milk is expected to occur throughout the country, while the increase in sheep milk will be primarily concentrated in the southern area.

A growing proportion of the increased milk supply will be for consumption in fluid form (including minor amounts of condensed and powdered milk). Milk for processing (butter, cheese, casein) will increase less, because of the high consumption levels of cheese in the base period and the relatively small proportion of butter in the Italian diet.

TABLE 41.--Italy: Horse and donkey meat--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Livestock numbers.....	1,000 head	1,540	1,010	547	400
Slaughter rate.....	Percent	9.7	9.3	9.3	9.3
Number of slaughtered animals..	1,000 head	149	94	50	37
Average slaughter weight.....	kg.	310	319	320	324
Total slaughter weight.....	1,000 metric tons	46	30	16	12
Meat yield.....	Percent	50	50	50	50
<u>Total Production</u> (carcass wt.)	1,000 metric tons	23	15	8	6
<u>Consumption</u>	do.	34	40	31	27
<u>Net trade</u>	do.	+11	+25	+23	+21
<u>Per capita consumption</u>	kg.	0.7	0.8	0.6	0.5

TABLE 42.--Italy: Poultry--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
<u>Poultry</u> number of animals	1,000 birds	130,000	192,000	225,000	265,000
<u>Production</u> -live weight... -carcass weight...	1,000 metric tons do.	155 129	228 190	268 223	315 263
<u>Consumption</u>	do.	140	218	258	295
<u>Net trade</u>	do.	+11	+28	+35	+32
<u>Per capita consumption</u> ...	kg.	2.9	4.3	5.0	5.6

TABLE 43.--Italy: Rabbits--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
<u>Production</u>	1,000 metric tons	40	50	57	63
<u>Consumption</u>	do.	40	50	57	63
<u>Per capita consumption</u> ...	kg.	0.8	1.0	1.1	1.2

Since regional supplies and net income determine the pattern of milk consumption, the demand for milk will continue to show great regional variations. Per capita intake of fluid milk in southern Italy in 1970 will be less than half the intake in the northern part of the country. Per capita consumption of condensed and powdered milk will increase only slowly. By 1975, Italy will be a net importer of butter, although on approximately the same scale as in the base period. Italy will also be a net importer of cheese, since consumption will increase faster than production (tables 44, 45).

In line with the projected increase in the poultry population, the number of laying hens is also expected to increase. Productivity and production will rise, because of an expected shift towards farms specializing in commercial egg production. Commercial production in 1975 likely will account for about 25 percent of total egg output. Although consumption will increase at a slightly lower rate than production, net imports will still continue on a rather high level. This will probably cause domestic egg prices to decline and egg consumption to be stimulated. Indirect egg consumption will

TABLE 44.--Italy: Cow Milk--Production and requirements in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Number of cows.....	1,000 head	4,430	5,180	5,635	6,055
Milk yield per cow.....	kg.	2,037	2,200	2,275	2,350
<u>Total Production</u>	1,000 metric tons	9,024	11,396	12,820	14,230
<u>Total requirements</u>	do.	9,024	11,396	12,820	14,230
Food.....	do.	2,694	3,616	4,110	4,390
Feed.....	do.	2,185	2,925	3,290	3,770
Further processing..	do.	4,145	4,855	5,420	6,070
<u>Per capita consumption</u> (including fresh, powdered and condensed milk).....	kg.	55.8	71.3	79.5	82.8

TABLE 45.--Italy: Sheep and goat milk--Production and requirements in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Number of animals.....	1,000 head	9,044	10,800	11,350	11,875
Milk yield per animal...	kg.	80	80	80	80
<u>Total Production</u>	1,000 metric tons	725	845	910	950
<u>Total requirements</u>	do.	725	845	910	950
Food.....	do.	170	205	235	255
Cheese.....	do.	220	285	295	310
Feed.....	do.	145	155	170	175
Others.....	do.	190	200	210	210
<u>Per capita consumption</u> ..	kg.	3.5	4.0	4.5	4.8

increase more than direct household consumption, because of the increased demand for pasta goods and other products containing eggs. Egg production shows less regional variation than many other foods. The same is true for consumption, at least of fresh eggs, which shows only minor differences in regional per capita levels (table 46).

Fats and Oils

During 1950-1959, per capita consumption of fats and oils was substantially the same (about 13 kgs.) as during the period 1920-1940. However, per capita consumption after World War II began rising; it is expected to reach 22 kgs. in 1975. This increase will affect all fats and oils, but the relative importance of various products will change. In the past, olive oil accounted for about one-half of total disappearance, all vegetable oil accounted for about two-thirds, and the remainder consisted of slaughter fats and butter. In the future, animal fats and olive oil will be less important and seed oils more important in the average fat ration. The production increase will not keep pace with the growth in consumption. Imports, particularly of oilseeds, will therefore increase greatly (table 47).

Olive oil: Olives are grown in most parts of central and southern Italy. Many olive trees are in very small holdings, in mixed cultivation with other crops. Methods of production are very inefficient. These factors and the primitiveness of oil processing

add to production costs and prevent a fast expansion of output.

Although acreage of specialized olive cultivation has tended to increase in recent years, production probably will not increase much in the future unless governmental actions drastically change the structure of the olive industry. Mixed cultivation is expected to decline slowly. Specialized cultivation will increase further, accompanied by some improvements in yields and processing techniques. Olive oil production in 1975 is not expected to exceed output in the base period by more than 12-13 percent.

The demand elasticity for olive oil has been remarkably constant over long periods. It is rather low for the country as a whole, though higher in the south (particularly in rural areas) than in the north. Demand apparently is strongly influenced by the lower prices of other vegetable oils which serve, to an increasing extent, as substitutes for olive oil. Consumption is likely to increase somewhat faster than production, so imports, which were large in 1955-57, will greatly expand. By 1975, about one-fifth of all domestic requirements will have to be met by imports (table 48).

Other vegetable oils: In 1955-57, only one-fifth of Italy's output of vegetable oils (other than olive oil) was from domestically grown oilseeds. Italy grows a great variety of oilseeds, but many are byproducts of fiber crops (cotton seed, flax seed, and hempseed) or are grown in only very small

TABLE 46.--Italy: Eggs--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- <u>1,000 metric tons</u> -----				
Production ¹	325	430	480	540
Consumption ²	375	480	535	585
Net trade.....	+50	+50	+55	+45
----- <u>Kilograms</u> -----				
Per capita consumption.....	7.8	9.5	10.4	11.0

¹ Excluding eggs for hatching.

² Including indirect human consumption.

TABLE 47.--Italy: Fats and oils--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975 (pure fat)¹

Item	Base period 1955-57	Projections for		
		1965	1970	1975
----- 1,000 metric tons -----				
Total Production.....	604	730	800	875
Vegetable oil ²	386	475	520	575
Butter.....	67	75	80	90
Slaughter fat.....	151	180	200	210
Total requirements.....	763	998	1,148	1,278
Food:				
Vegetable oil.....	436	600	720	825
Butter.....	78	93	98	106
Slaughter fat.....	155	185	205	217
Industrial:				
Vegetable oil.....	94	120	125	130
Total Net trade.....	+159	+268	+348	+403
Vegetable oil ³	+144	+245	+325	+380
Butter.....	+11	+18	+18	+16
Slaughter fat ⁴	+4	+5	+5	+7

¹ Conversion factors (only butter and margarine factors are applied to the above table): butter, 83.5; margarine, 83.5; olive oil, 99.0; seed oil, 99.0; and slaughter oil, 99.5.

² Including olive oil and other vegetable oils.

³ Including oil equivalent of oilseeds.

⁴ Excluding inedible tallow.

quantities (colza, sunflower, soybeans). The price competition of imported oils apparently prevents expansion of oilseed cultivation for which natural conditions are quite favorable, particularly in southern Italy.

The expected increase in demand (for both edible and industrial oils) will lead to a more than 100 percent growth in vegetable oil output. However, the largest part of the required raw material will originate abroad. In 1975, only about 15 percent of the total oilseed requirements will come from domestic sources. An estimated 470,000 metric tons of oilseeds and almost 300,000 metric tons of vegetable oils will have to be imported. Per capita consumption of vegetable oils is expected to triple by 1975, largely due to increased consumption of margarine (table 49).

Slaughter fat production and consumption will increase in line with meat output and consumption. A small import deficit will persist throughout the projection period.

Per capita consumption in 1975 will be larger than in 1955-57, but its share in total fat intake will be smaller (table 50).

Butter demand will increase about the same as demand for slaughter fats. Consumption might increase much faster if, in consequence of EEC's Common Agricultural Policy, the domestic price becomes lower in relation to other fats and oils. However, its share in the total fat intake will be lower than in the base period. Cheese consumption will increase at a moderate rate (table 51, 52).

Grapes and Wine

Grape production in Italy is very widespread. Like olives, vines are grown partly in specialized efficient holdings and partly in small inefficient holdings in mixed cultivation. Italian wine production is of two types: ordinary wine (95 percent) and fine table wines (5 percent). The latter type has an assured future. But ordinary wines

TABLE 48.--Italy: Olives and olive oil--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
<u>Average</u>					
Specialized.....	1,000 hectares	864	871	874	880
Mixed.....	do.	1,295	1,253	1,239	1,210
<u>Yield per hectare</u>					
Specialized.....	quintals per hectare	12.8	14.0	14.4	15.0
Mixed.....	do.	3.4	3.4	3.4	3.4
Total Olive production...	1,000 metric tons	1,545	1,645	1,680	1,730
<u>Utilization</u>					
Present consumption.....	do.	30	40	45	55
Processing for oil.....	do.	1,515	1,605	1,625	1,675
Oil yield.....	percent	18	18.4	18.6	18.7
Production of Olive Oil..	1,000 metric tons	270	295	305	315
Consumption.....	do.	303	345	375	400
Net trade.....	do.	+33	+50	+70	+85
Per capita consumption...	kg.	6.3	6.8	7.2	7.5

might find it difficult to withstand competition from France when a single wine market will be inaugurated in 1970, in accordance with the Treaty of Rome. Competition will be particularly difficult unless processing is improved, the great variety of different wines is reduced and standardized, and marketing methods are modernized.

Tendencies emerging from the time-series analysis of per capita consumption during 1949-59 seem to justify the expectation of a steady increase in demand for wine. The increase in output, expected due

to a gradual shift of cultivation to specialized vineyards with increasing yields, will outpace the growth in demand. So export surpluses will be more than three times as great in 1975 as in 1955-57 (table 53, 54).

Nonfood Products

Cotton, tobacco, and wool are the most important commodities in this category. Domestic output of these products is small relative to total requirements, but these products are very important in Italy's foreign agricultural trade (table 55, 56, 57).

TABLE 49.--Italy: Vegetable oils--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975¹

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 metric tons</u>				
<u>Total Production</u>	116	180	215	260
Edible oils.....	95	158	193	237
Industrial oils.....	21	22	22	23
<u>Total requirements</u>	227	375	470	555
Food.....	133	255	345	425
Industrial uses.....	94	120	125	130
<u>Net trade</u> ²	+111	+195	+255	+295
<u>Kilograms</u>				
<u>Per capita consumption</u>	4.7	7.4	9.0	10.5
Food:				
In oil and industrial margarine form.....	2.6	4.3	5.5	6.5
In table margarine form.....	0.2	0.7	1.1	1.6
Industrial uses.....	1.9	2.4	2.4	2.4

¹ Other than olive oil.

² See table 34.

TABLE 50.--Italy: Slaughter fats--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975¹

Item	Base period 1955-57	Projections for		
		1965	1970	1975
<u>1,000 metric tons</u>				
<u>Production</u> ²	151	180	200	210
<u>Consumption</u> ³	155	185	205	217
<u>Net trade</u>	+4	+5	+5	+7
<u>Kilograms</u>				
<u>Per capita consumption</u>	3.2	3.7	4.0	4.1

¹ Not including inedible tallow.

² Production includes the fat yield of imported animals.

³ Including uses in pork processing industry.

TABLE 51.--Italy: Butter--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
<u>Production</u>	1,000 metric tons	67	75	80	90
<u>Consumption</u>	do.	78	93	98	106
<u>Net trade</u>	do.	+11	+18	+18	+16
<u>Per capita consumption</u> ...	kg.	1.6	1.8	1.9	2.0

TABLE 52.--Italy: Cheese--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
<u>Cow Milk Cheese:</u>					
<u>Production</u>	1,000 metric tons	284	335	365	390
<u>Consumption</u>	do.	288	357	391	420
<u>Net trade</u>	do.	+4	+22	+26	+30
<u>Per capita consumption</u>	kg.	6.0	7.1	7.6	7.9
<u>Sheep Milk Cheese:</u>					
<u>Production</u>	1,000 metric tons	37	45	48	53
<u>Consumption</u>	do.	30	38	41	45
<u>Net trade</u>	do.	-7	-7	-7	-8
<u>Per capita consumption</u>	kg.	0.6	0.7	0.8	0.8

TABLE 53.--Italy: Grapes--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Total Production.....	1,000 metric tons	8,674	10,120	10,805	11,430
Total requirements.....	do.	8,570	9,915	10,530	11,075
Direct consumption..	do.	505	650	715	795
Wine production.....	do.	8,015	9,205	9,755	10,215
Waste.....	do.	50	60	60	65
Net trade ¹	do.	-104	-205	-275	-355

¹ Mostly table grapes.

TABLE 54.--Italy: Wine--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Production.....	1,000 hectoliters	54,715	65,790	71,380	76,600
Total requirements.....	do.	53,115	63,250	68,500	73,050
Direct consumption...	do.	52,470	62,150	67,200	71,550
Industrial uses.....	do.	645	1,100	1,300	1,500
Net trade.....	do.	-1,600	-2,540	-2,880	-3,550
Per capita consumption	Liters	108.7	122.7	130.0	135.0

TABLE 55.--Italy: Cotton--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Acreage.....	1,000 hectares	47	56	61	63
Yield.....	Quintals per hectare	2.14	2.5	2.6	2.7
Production.....	1,000 metric tons	10	14	16	17
Requirements.....	do.	181	224	241	257
Net trade ¹	do.	+171	+210	+225	+240

¹ Including processed cotton products re-exported.

TABLE 56.--Italy: Tobacco--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
Acreage.....	1,000 hectares	49	55	56	56
Yield.....	Quintals per hectare	14.9	14.9	15.0	15.0
<u>Production</u>	1,000 metric tons	'73	82	84	84
<u>Requirements</u>	do.	71	89	105	114
<u>Net trade</u>	do.	-2	+7	+21	+30
<u>Per capita consumption</u> ..	kg.	1.47	1.76	2.03	2.15

TABLE 57.--Italy: Raw wool--Production, requirements, and net trade in 1955-57 and projections for 1965, 1970, and 1975

Item	Unit	Base period 1955-57	Projections for		
			1965	1970	1975
<u>Production</u>	1,000 metric tons	12.5	16	17	17.5
<u>Requirements</u>	do.	99.0	155.0	180.0	200.0
<u>Net trade</u>	do.	+86.5	+139.0	+163.0	+182.5

TABLE 58.--Italy: Per capita consumption of food in 1955-57 and projections for 1965, 1970, and 1975

Commodity	Base period 1955-57	Projections for			Index (1955-57=100)		
		1965	1970	1975	1965	1970	1975
-----Kilograms-----							
Wheat.....	161.6	161.5	161.5	160.0	100	100	99
Rice (milled).....	6.1	6.2	6.2	6.4	102	102	105
Corn.....	6.7	6.0	5.5	5.0	90	82	75
Barley.....	2.6	2.8	3.0	3.1	108	115	119
Rye.....	3.0	2.0	1.8	1.7	67	60	57
Sugar.....	16.3	23.0	27.0	29.0	141	166	178
Potatoes ¹	46.2	56.0	58.0	59.0	121	126	128
Pulses.....	5.5	5.2	5.0	4.7	95	91	85
Tomatoes ²	15.9	30.0	35.6	38.5	189	224	242
Fresh vegetables.....	70.2	103.7	117.4	125.0	148	167	178
Temperate fruits.....	29.2	52.7	60.9	65.0	180	209	223
Citrus fruits.....	12.0	15.0	16.0	17.0	125	133	142
Treennuts and dried fruits.....	7.3	6.2	5.6	5.0	85	77	68
Melons and other minor fruits.....	13.8	18.8	21.3	23.0	136	154	167
Fresh and dried fruit.....	62.2	92.8	104.0	110.0	149	167	177
Beef and veal.....	12.0	16.6	18.2	20.0	138	152	167
Pork.....	5.2	5.9	6.3	6.5	113	121	125
Mutton and goat.....	1.37	1.54	1.58	1.62	112	115	118
Horse and donkey meat.....	0.7	0.8	0.6	0.5	114	86	71
Poultry.....	2.9	4.3	5.0	5.6	148	172	193
Rabbits.....	0.8	1.0	1.1	1.2	125	138	150
Cow's milk.....	55.8	71.3	79.5	82.8	128	142	148
Sheep and goat's milk.....	3.5	4.0	4.5	4.8	114	129	137
Total milk.....	59.3	75.3	84.0	87.6	127	142	148
Cheese.....	6.6	7.8	8.4	8.7	118	127	132
Butter.....	1.6	1.8	1.9	2.0	113	114	125
Eggs.....	7.8	9.5	10.4	11.0	122	133	141
Slaughter fats.....	3.2	3.7	4.0	4.1	116	125	128
Vegetable oils.....	2.8	5.0	6.6	8.1	179	236	289
Olive oil.....	6.3	6.8	7.2	7.5	108	114	119
Tobacco.....	1.47	1.76	2.03	2.15	120	138	146
Wine.....	108.7	122.7	130.0	135.0	113	120	124

¹ Including industrial use.² Including both fresh and processed tomatoes.

TABLE 59.--Italy: Net trade in farm products in 1955-57 and projection for 1965, 1970, and 1975

Commodity	Base period 1955-57	Projection			
		1965	1970	1975	
----- <u>1,000 metric tons³</u> -----					
<u>Grain</u>					
Wheat.....	-55	+100	+95	+140	
Rice.....	-278	-212	-194	-166	
Corn.....	+215	+1,135	+2,290	+2,485	
Barley.....	+205	+440	+610	+815	
Rye.....	+87	+118	+143	+172	
Oats.....	+65	+142	+202	+208	
<u>Vegetables and Fruits</u>					
Potatoes.....	-50	-115	-150	-75	
Tomatoes.....	-83	-100	-95	-105	
Vegetables (fresh).....	-304	-380	-410	-605	
Apples.....	-430	-310	-380	-450	
Pears.....	-79	-115	-250	-335	
Peaches, Apricots, Plums.....	-128	-55	-65	-75	
Cherries.....	-21	-28	-35	-50	
Oranges, Tangerines.....	-220	-300	-375	-450	
Lemons and other citrus.....	-192	-200	-225	-265	
Treenuts & dried fruits.....	-123	-115	-105	-105	
Melons & water melons.....	-5	-5	-15	-20	
Other minor fresh fruits ¹	-	-	-	-	
Fresh and dried fruits.....	-1,198	-1,128	-1,450	-1,750	
<u>Meats</u>					
Beef and Veal.....	+60	+200	+190	+200	
Pork.....	+35	+71	+95	+110	
Mutton & Goat.....	-	-	-	-	
Horse & Donkey.....	+11	+25	+23	+21	
Poultry & Rabbit.....	+11	+28	+35	+32	
<u>Dairy, Fats and Oils</u>					
Cow's milk.....	-	-	-	-	
Sheep and Goat's milk.....	-	-	-	-	
Eggs.....	+50	+50	+55	+45	
Olive oil.....	+33	+50	+70	+85	
Vegetable oil ²	+111	+195	+255	+295	
Slaughter fats.....	+4	+5	+5	+7	
Butter.....	+11	+18	+18	+16	
Cheese.....	-3	+15	+19	+22	
<u>Other</u>					
Grapes.....	-104	-205	-275	-355	
Sugar (refined).....	-125	-85	-50	-40	
Pulses.....	+3	+20	+10	+10	

See footnotes at end of table.

TABLE 59.--Italy: Net trade in farm products in 1955-57 and projections for 1965, 1970, and 1975 (continued)

Commodity	Base period 1955-57	Projection			
		1965	1970	1975	
----- <u>1,000 metric tons</u> -----					
<u>Other (Cont.)</u>					
Cotton.....	+171	+210	+225	+240	
Tobacco.....	-2	+7	+21	+30	
Raw wool.....	+86.5	+139.0	+163.0	+182.5	
----- <u>Hectoliters</u> -----					
Wine.....	-1,600	-2,540	-2,880	-3,550	

¹ Strawberries and figs, etc.

² Other than olive oil, including both edible and industrial uses and oils processed from imported oilseeds.

³ + = net requirements to be imported.

- = net surpluses available for exports.

